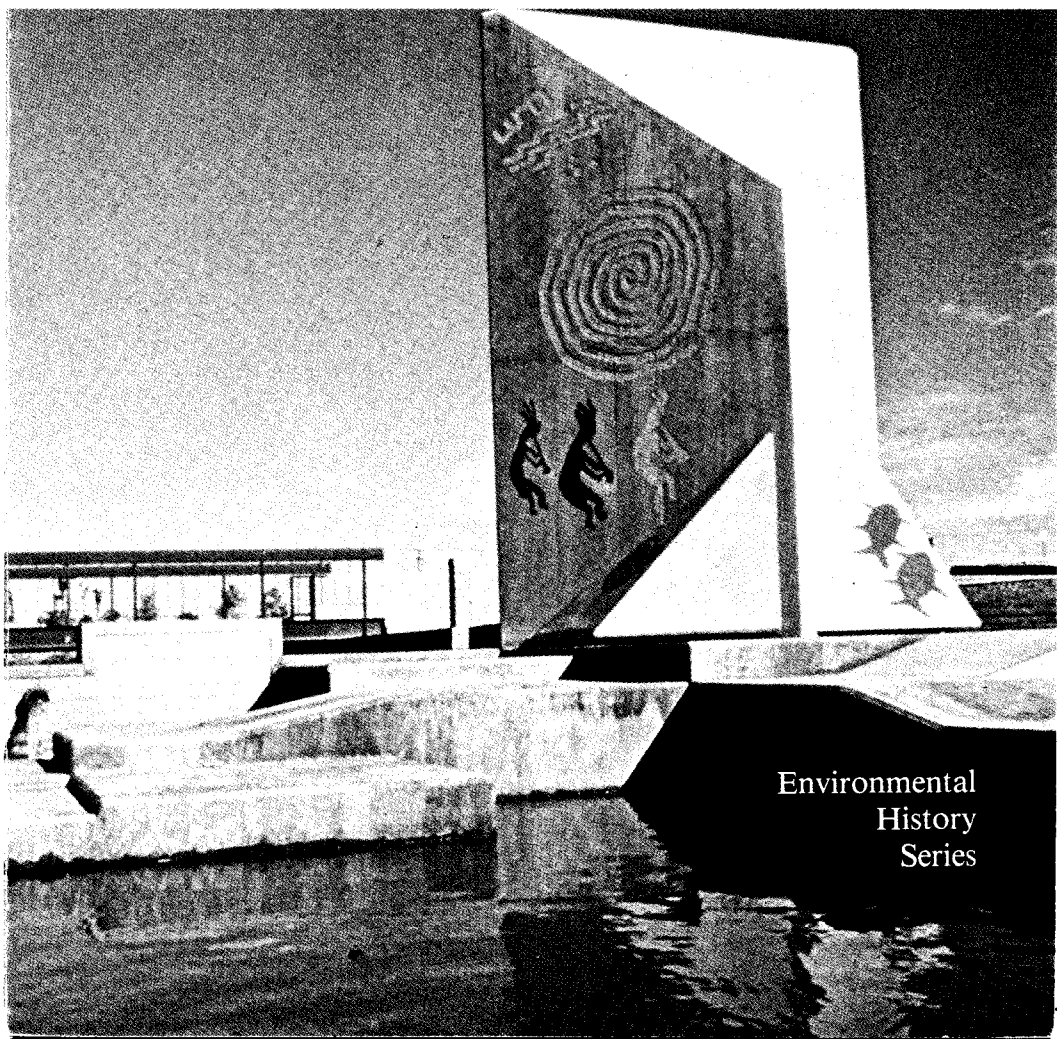


Shaping Environmental Awareness

The United States Army Corps of Engineers
Environmental Advisory Board
1970-1980

Martin Reuss



Environmental
History
Series

Shaping Environmental Awareness
The United States Army Corps of Engineers
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by

Martin Reuss

Historical Division
Office of Administrative Services
Office of the Chief of Engineers

Foreword

In response to the growing environmental sensitivity which swept the United States in the 1970s, evident in myriad laws, executive orders, and regulations, the U.S. Army Corps of Engineers needed to change considerably its way of planning and developing civil works projects. Soon after the National Environmental Policy Act came into force in January 1970, Lieutenant General Frederick J. Clarke, then Chief of Engineers, created an Environmental Advisory Board of outstanding environmentalists to help insure that this redirection was done wisely and sensitively. The subsequent relationship between the Corps and the Board was often turbulent; occasionally both Corps officials and Board members despaired that any constructive dialogue could be established. That such a dialogue did in fact develop and finally flourish reflects the commitment of many people who were determined to be responsive to each other's concerns.

This monograph, the first in the Corps' Environmental History Series, transcends the immediate topic, for, in telling the history of the Environmental Advisory Board, Dr. Reuss also relates some of the policy struggles within the Corps which Environmental Advisory Board recommendations often generated. Consequently, this study forms part of the story of one of the most dynamic and introspective periods in Corps history.



J. K. Bratton
Lieutenant General, USA
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Preface

This is a history of an experiment which succeeded, not however without frustrations and breakdowns along the way. It tells of the development of the United States Army Corps of Engineers Environmental Advisory Board, established in 1970 to advise the Chief of Engineers on matters relating to environmental policy. On the surface the relationship impressed many as untenable, matching an organization traditionally construction-minded with influential environmentalists devoted to protecting nature's beauty and resources for future generations. But the three Chiefs of Engineers who managed the Corps during the period covered in this study surprised the skeptics. Lieutenant Generals Frederick J. Clarke, William C. Gribble, Jr., and John W. Morris worked to replace confrontation with cooperation, despite occasional self-doubts and a staff not always sure how to handle this Board of environmentalists. The result has been a relationship of mutual benefit and respect.

Writing contemporary history, particularly of events to which the historian was sometimes an actual observer, if not participant, puts additional burdens on the writer. His immediacy to the events and to the people involved, which can be enormously advantageous, must be balanced with careful scrutiny of the documents, probing of people's positions and motivations through oral interviews, and dedication to comprehensiveness. Consequently, accessibility to all the necessary files as well as to the participants, present and past, is essential. Fortunately, this situation was present during the preparation of this history. One reason for the cornucopia of information was the passage of the 1972 Federal Advisory Committee Act, which requires federal agencies with advisory committees to keep all paperwork dealing with the committees. Even before implementation of this act, however, the Corps had developed a comprehensive filing system which included thick binders containing correspondence, minutes, and briefing papers for each meeting. As a result the "active" official files proved extraordinarily fertile research grounds.

Yet whatever virtues this history possesses result more from the enthusiastic participation of past and present Corps officials and Board members than from the abundant written data. Only extensive interviews—indicated in the chapter notes—could provide the insights and background information so vital to this study. Likewise the written comments made by many individuals on earlier drafts considerably improved the final product. Certainly the history could not have been written at all without the support of Lieutenant Colonel George F. Boone, USA (Retired), the Assistant Director of Civil Works for Environmental Programs from 1978 to 1981, who made all

the Environmental Advisory Board papers available to this writer and also gave unfailingly of his time to answer numerous questions. The present Chairman of the Environmental Advisory Board, Dr. Gerald J. McLindon, gave constant encouragement, at the same time providing invaluable criticism and information.

The Director of Civil Works, Major General Elvin R. Heiberg III, agreed from the very beginning that the history must be objective and thorough and helped insure this aim through his oral and written comments and generally supportive position. Drs. John T. Greenwood, Frank N. Schubert, Paul K. Walker, Leland R. Johnson, and Martin K. Gordon of the Historical Division, Office of the Chief of Engineers, contributed numerous suggestions which improved the style and content. Christine Hardyman carefully edited the manuscript, and Margaret Wales of the Historical Division generously assisted in preparing the manuscript for publication. A special word of appreciation is owed Dr. Schubert, whose editorial skills and active interest made the writing both more enjoyable and more succinct.

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When all is done, the help of good counsel is that which setteth business straight.

—Francis Bacon (1561–1626)

Chapter I

THE BOARD'S GENESIS

In 1969 Supreme Court Justice William O. Douglas accused the Army Corps of Engineers of lacking any conservation or ecological standards. "It operates as an engineer—digging, filling, damming the waterways. And when it finishes, America the Beautiful is doomed."¹ Many Americans agreed. They looked on the Engineers as irresponsible and irrepressible builders. Yet even as numerous critics castigated the Corps, it was undergoing a profound reexamination of its policies and organization in order to respond better to growing environmental concerns. Its record for the 1970s was not one of an entrenched bureaucracy stubbornly resisting change, but rather the opposite. Working with Congress, agencies of the Executive Branch, and the environmental community, it developed new procedures to insure that environmental issues were properly addressed. Consequently the Corps became the first federal water resources agency to institutionalize environmental views.

The creation of the Environmental Advisory Board, at a time when the Corps was under fire from a wide range of critics, reflected the Corps' determination to listen and respond constructively to its opponents. It was a gamble; many doubted that any good faith could be established. Indeed, at times in the years ahead the relationship did seem to flounder, but the Board showed more endurance than expected. Its history is not simply one of the development of a Board, but the education of a bureaucracy.

The Environmental Advisory Board was created on 2 April 1970, when Lieutenant General Frederick J. Clarke, Chief of Engineers, invited six distinguished members of the environmental establishment to become its charter members. They would "provide not only advice on specific policies, programs and problems, but perhaps more important, contribute to an enhanced mutual understanding and confidence between the Corps and both the general public and the conservation community."² Furthermore, they could give to the Corps "not only a broad range of knowledge, expertise and experience, but also a philosophy and perspective that has not yet been fully developed within the Corps."³ Letters were sent to Roland Clement, Ecologist/Vice President, National Audubon Society; Lynton K. Caldwell, Professor of Political Science, University of Indiana; Charles H. W. Foster, Executive Director, New England Natural Resources Center; Harold Gilliam, Environmental Reporter, San Francisco *Chronicle*; Richard H. Pough, Chairman of the Board, Open Space Action Institute and America the Beautiful Fund; and Charles H. Stoddard, Environmental Consultant and former Director of the Bureau of Land Management.

The establishment of the Environmental Advisory Board, or EAB as it came to be called, was a calculated risk in which both the EAB members and the Corps had a stake. While all those invited to be members accepted, most shared the concern of Elvis J. Stahr, President of the National Audubon Society. In expressing the Society's willingness to allow Clement to participate in the EAB, Stahr admitted, "I will say frankly that some of our friends have already expressed doubt-- even dismay--at this joining of forces, since they feel that it is 'window dressing'." Stahr went on to say that "only effective cooperative results will dispel this credibility gap."⁴



Lieutenant General Frederick J. Clarke, Chief of Engineers, 1969-1973.

In reply General Clarke was no less candid:

I do not propose to inhibit the Board as to publicly expressing their thoughts. Thus there should be no questions of their position or reputation being compromised by their connections with the Corps. I am sure that you can also see that I am accepting considerable risks in establishing such a Board. I am confident, nevertheless, that through mutual trust and understanding we will be able to insure that the Corps meets both the environmental and developmental needs of the nation for the future.⁵

One of the risks which General Clarke took was to put his own judgment and reputation on the line. As he bluntly said in a 1977 interview, "There were many people in our organization who thought I was completely crazy—sort of inviting the enemy into the camp."⁶ There undoubtedly were enemies. One friend told Clement that he had seriously blundered. "The only way to redirect the Corps of Engineers," the friend said, "is to abolish it."⁷ Still, the formation of the EAB had been carefully considered; and in retrospect we can see that it was the product of evolution, not an overnight revolution in the Corps' philosophy—or the nation's.

The development which most affected the nation's attitude toward its natural resources was the growth of "environmentalism," a word that begs for definition. One might recall the story of the six blind men and the elephant; each man touched a different part of the elephant's body and consequently arrived at a different conclusion about what the animal was. In the same way, "environmentalism" can have various meanings depending on one's own interest. If one means an appreciation of and sensitivity to the delicate relationship of the world of man to the world of nature, then the concept is nothing new. Ancient Greeks, Renaissance humanists, French Enlightenment thinkers, German Neo-Classicalists, and American Transcendentalists all preached the importance of living in a unified world, where the works of man and nature complemented each other. Today of course environmentalism has come to mean more than a perception or style of life. A hint is given by the suffix; twentieth-century "isms" almost invariably are political ideologies. What separates environmentalists today from those of the past are three guiding principles. First, political maturity requires the harmonizing of nature's world with man's needs, with a proper balance between the two. Second, progress is not necessarily good, especially if it leads to the dehumanization of life or the brutalization of society. Third, the government itself currently destroys the proper ecological balance by promising too much to man and expecting too much from nature.

The third principle made environmentalism as much a political movement as a philosophy. Beginning in the early 1960s, particularly with the publication in 1962 of *Silent Spring* by Rachael Carson, an increasing number of people became concerned over the federal government's ability to manage the nation's resources. Since 1908, when President Theodore Roosevelt called the first national conservation conference, both federal and state governments had assumed increasing responsibility for husbanding America's resources.

However, with increasing population, sophisticated technological and scientific breakthroughs, and steady economic expansion, government had found it difficult to steward the country's natural wealth. Moreover, misguided attempts to protect crops through the use of enormous amounts of pesticides actually threatened human health. This danger was forcefully pointed out in Carson's book, a publication which became a landmark in the history of the environmental movement.

Carson initiated the jeremiad, but other prophets of doom followed. George Wald, Paul Ehrlich, Harrison Brown, and, most notably, Barry Commoner stressed the importance of man working with nature and not against it. At the same time, television pictures of beaches covered with viscous globules of black ooze from oil tanker mishaps dramatically suggested the devastation man could cause the environment. Clearly the government had to do something.

The response of federal authorities to new environmental concerns began during the Kennedy administration. In May 1962 President John F. Kennedy approved a document written by his Water Resources Council, which included the Secretaries of Army, Interior, Agriculture, and Health, Education, and Welfare. Officially titled "Policies, Standards, and Procedures in the Formulation, Evaluation, and Review of Plans for Use and Development of Water and Related Land Resources," the document was printed as Senate Document 97 and is better known by this title. Of particular importance to the Corps of Engineers, Senate Document 97 provided that nonstructural as well as structural measures be considered in addressing problems related to water resource development. Three years later the Corps undertook additional environmental responsibilities when the 1965 Rivers and Harbors Act authorized the Engineers to cooperate with other federal and nonfederal agencies to control and eradicate nuisance water plants. The following year President Lyndon B. Johnson directed federal agencies to evaluate flood hazards before funding new construction or the purchase or disposal of lands.

Certainly the most important piece of federal environmental legislation passed during this time was the National Environmental Policy Act of 1969 (NEPA), approved on 1 January 1970. The purpose of the act was to

declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the nation; and to establish a Council on Environmental Quality.*

The most controversial and significant part of this act was Section 102(2)(c), which required all federal agencies to file an environmental impact statement (EIS) with each report on proposals for legislation or other actions "significantly affecting the quality of the human environment." Two months later President Richard M. Nixon directed that all federal staff agencies bring their

procedures and regulations into conformance with NEPA.⁹ In March and April 1970 the Corps issued three Engineer Circulars to do just that.¹⁰

In August 1965 Utah Senator Frank E. Moss introduced a bill to create a new Department of Natural Resources, incorporating the Department of the Interior and various other water-related agencies, including the civil works functions of the Corps of Engineers. The bill failed; but its timing, at the dawn of the Corps' concerted effort to address environmental issues, suggests that the Corps changed only in response to outside pressure. Closer examination, however, reveals otherwise. Already in early 1964 Cyrus R. Vance, Secretary of the Army, decided that the Engineers' civil works program should be studied and evaluated; and he established a Civil Works Study Board for that purpose. In January 1965 the board completed its study, which was published by the Senate Public Works Committee in February 1966.¹¹ While the board emphatically supported the retention of civil works activities by the Corps, it criticized the Corps for failing to formulate and disseminate the objectives and policies of the Army's civil works program. Moreover, the board asserted, "The current policies, procedures, organization and staffing of the Corps of Engineers are not being fully adjusted . . . to deal effectively with a much changed and continuously changing water resources environment."¹²

The Corps quickly responded to this criticism. Between 1966 and 1970 it issued at least twenty new regulations or guidelines requiring increased attention to aesthetic and environmental values in project planning and construction. During this same time, 26 landscape architects joined the Corps work force, so that by 1970, 101 full-time landscape architects were employed by the Engineers. The addition of 71 biologists, foresters, agronomists, sanitary engineers, and other specialists in environmental sciences brought the total to 287 people employed in these vocations by the Corps. Meanwhile, studies were begun to investigate various environmental problems. For instance, one study examined the protection of anadromous fish, which were being threatened by the high dams on some rivers, notably the Columbia and the Snake. Another sought to identify the best plants to grow on levees. A third examined ways to protect fish and wildlife when water was diverted into floodways along the Mississippi River. Still another considered how to prevent further destruction of the American side of Niagara Falls. The Corps also supported such acts as the Wild and Scenic Rivers Act, the Water Resources Planning Act, the Federal Water Pollution Control Act, the Federal Water Projects Recreation Act, and the Shoreline Study Act.¹³ In 1969 alone the Corps referred 355 cases of possible violations of water pollution laws to the Department of Justice. This number was more than for all other federal agencies put together.¹⁴ Perhaps the most visible manifestation of the Corps' desire to be responsive to new trends in water management was the establishment in April 1969 of the Institute for Water Resources (IWR). One of the Institute's major responsibilities was to initiate, perform, and monitor "research in all phases of water resources planning to evaluate existing methods, procedures, and criteria, and to develop new and innovative techniques, giving particular

attention to environmental quality, regional development, and interregional and international planning."¹⁵

The Corps also showed a change of thinking in its regulatory program. In the mid-1960s, the Florida land development firm of Zabel and Russell began to dredge and fill some of their Boca Ciega Bay property for a trailer park. However, Colonel Robert Tabb, the Jacksonville District Engineer, refused to issue a permit for this project, arguing that it would unduly harm fish and wildlife, in violation of the Fish and Wildlife Coordination Act, and that it was opposed by various state and local authorities. The company thereupon sued the Corps. The plaintiffs argued that the only grounds for denial of a permit was interference with navigation. The Court of Appeals for the Fifth Circuit reversed the District Court, which had ordered the permit issued. It held that Congress had the constitutional authority to forbid a project for ecological reasons and that power had been lawfully delegated to the Corps. The Corps not only won the legal fight, but gained some friends among the environmental community as well.¹⁶

Of course these various activities did not prevent criticism of the Corps. Indeed, by the end of the decade environmentalists were lambasting the Corps for what they considered its insensitivity to environmental matters. Among the Corps' severest critics were Justice Douglas, Elizabeth Drew, and George Laycock.¹⁷ Certainly this criticism demoralized some Corps personnel, but as General Clarke said, "I think by and large, the people in the Corps realized that our job was to do what we always had done: do what the people of the country wanted. And if the people of the country were changing what they wanted, we'd better get in step and find a way to do it. Thank God that was the dominant feeling that I ran into."¹⁸ Clarke went on to suggest that because there was "something of the military" in the civil works side of the Corps, it was able to accommodate the environmental movement with relative ease.¹⁹ The establishment of the EAB clearly signaled to the Corps and to the public that this accommodation would be a permanent part of Corps activities.

Chapter II

THE FIRST YEAR: A TIME OF TRIAL

General Clarke, in looking back over his years as Chief of Engineers, thought that it took about a year of meetings before Board members and Corps personnel came to appreciate and acknowledge the essential honesty and integrity of each other's position.¹ Actually it took a while longer. For his part, Clarke did everything he could to convince the Board members that they were not simply "window dressing." This statement, in fact, was one of the general's opening remarks when he addressed the group at the first EAB meeting on 25 May 1970 in Washington, D.C.² Expanding ideas contained in his letter of 2 April, Clarke noted five specific functions for the Board:

1. Examine existing and proposed policies, programs, and activities from an environmental point of view to define problems and weaknesses and suggest remedies

2. Advise on how the Corps can improve its relations with the conservation community and the general public, i.e., close credibility gaps

3. Review problems or issues pertinent to specific plans or projects

4. View its responsibilities within the context of the present and the future, rather than dwell on what some consider past mistakes

5. Consider the need for expanding its membership in the future³

One of the first issues raised at this meeting also became one of the most persistent, to which the Board returned several times. After a presentation on the Corps' Red River, Kentucky, study by Brigadier General Richard H. Groves, Deputy Director of Civil Works, Charles Foster mentioned that the current planning process was not very democratic since the Corps responded only to a narrow segment of the public interest. Because of this limitation, the Corps often became the "fall guy" when project proposals became public issues. Lynton Caldwell added that the Corps was forced to respond to specific requests and proposals when it should be looking at needs in a national context.⁴ The problem was formidable; a decade later the Corps was still wrestling with it.

At an afternoon executive meeting the Board elected Charles Stoddard as its Chairman. The members also reviewed an IWR draft of a proposed environmental policy letter that General Clarke intended to send out to field agencies. Additionally they agreed that Corps problems fell into three major areas: projects, permits, and Corps dredging and filling operations. The Board asked for information on specific cases before the next meeting so that it might better understand operating policies and procedures.⁵

On 2 June 1970 General Clarke's office distributed his environmental policy letter to Corps field activities. In it Clarke wrote, "our overall objective

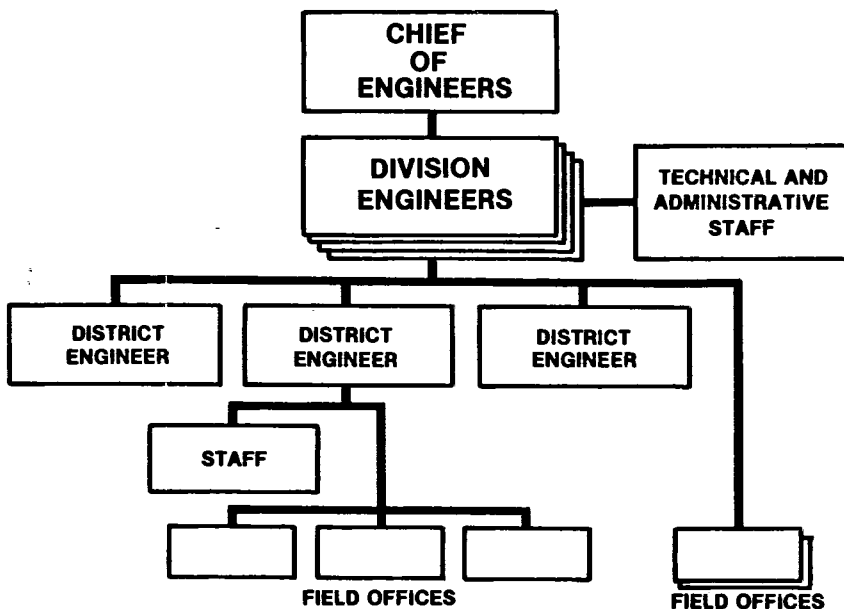
**Charles H. Stoddard, Chairman
Environmental Advisory Board
1970-1971**



in accordance with our mission will be to seek to balance the environmental and developmental needs of our nation.”⁶ He continued:

We will examine carefully environmental values when studying alternative means of meeting the competing demands of human needs; best solutions must be found to problems meeting needs and aspirations of the people we serve, not merely determination when a specific engineering solution is economically justified. . . . In recognition of the highly complex relationship between nature and man, we will encourage and support efforts to bring the best existing ecological knowledge and insights to bear on the planning, development and management of the nation’s water and related resources; environmental values will be given full consideration along with economic, social, and technical factors; special efforts will be made so that resources options will be kept open for future generations.⁷

While the rhetoric was encouraging, environmentalists wanted to see actual changes made. Many members of Congress also were becoming impatient, in particular Congressman Henry S. Reuss, Chairman of the Conservation and Natural Resources Subcommittee of the House Government Operations Committee. Reuss began hearings on the 1899 Refuse Act (33 U.S.C. 407) in early 1969, and in March 1970 he issued a report containing five principal recommendations.⁸ One was to have the Corps require and issue permits for discharges into navigable waterways. The recommendation, designed to strengthen drastically the nation’s water



Organization Chart of the Corps of Engineers' Civil Works Districts and Divisions.

pollution laws, was supported by recent Supreme Court interpretations which maintained that the 1899 Refuse Act must not be narrowly construed.⁹ Another significant recommendation had to do with altering harbor-line procedures for determining where in the harbor landfill could be dumped or structures built.¹⁰

In the months following publication of his report, Reuss continued to agitate for procedural reform within the Corps of Engineers. General Clarke was determined to be responsive. In the middle of May 1970, the Corps revised regulations for processing permits, clarifying the complementary responsibilities of the Corps and the Department of the Interior. Later that month a new regulation was issued which required permits for all harbor work shoreward of harbor lines. Finally, on 29 July, a day after Reuss had accused the Corps of "disgraceful" behavior in its narrow interpretation of the 1899 Refuse Act,¹¹ the Army announced that permits for all discharges into navigable waters would be required under Section 13 of the act.¹²

When General Clarke greeted the Board in Baltimore, Maryland, for the opening session of its second meeting, the 1899 Refuse Act was on many people's minds. Clarke outlined the vastness of the problem. At the time there were 40,000 to 130,000 unpermitted discharges into United States waters. These needed to be identified, and those responsible would be required to obtain Corps permits. To do this, however, required an additional two hundred employees and some \$4 million. More than twice this many personnel might be needed eventually.¹³ The Corps' earlier interpretation of

the 1899 act had been in accord with long-held views. Now all federal agencies recognized that the Refuse Act had to be vigorously enforced in order to prevent any deterioration of the nation's waters.

The real question on General Clarke's mind was how to include environmental considerations in Corps planning. He suggested that perhaps advisory boards ought to be created at the District level, but wondered where to find qualified people. Moreover, he was concerned that environmental obstacles might prolong the planning process and prevent projects from reaching higher authorities expeditiously. Clarke predicted, however, that "As the expertise of our planners increases, more of the environmental input will come about routinely and less as a result of issues being raised by environmental interests."¹⁴

One way to insure that the Corps integrated environmental considerations into the planning process was through the publication of *Environmental Guidelines for the Corps of Engineers* (ER 1165-2-500, Appendix A). These guidelines, promised in Clarke's letter to the field on 2 June, were drafted by the Institute for Water Resources and reviewed by the EAB at its October meeting. Originally intended to provide guidance for the Corps as well as general information for the public, the draft's final version served the first purpose better than the latter. Board members were divided over what the guidelines should emphasize. Caldwell, for instance, felt that perhaps "it is better to look professionally at the environment and worry less about what the public thinks."¹⁵ Clement wondered to what extent it was possible to meet increasing demands on national resources. Committee members generally agreed that the Corps needed plans for entire river basins, rather than for each individual project. Later, EAB members decided to submit individual comments on *Environmental Guidelines* by the beginning of the following month.¹⁶

Stoddard thought he had a better idea. He pursued a plan in the afternoon executive session which he had originally proposed the month before to Colonel Robert R. Werner, Assistant Director of Civil Works for Comprehensive Planning and EAB Secretary. The Chairman wished to solicit the advice of several Corps opponents on resolving environmental problems of selected controversial projects. Stoddard thought that suitable projects for inclusion in his proposal were the Cross Florida Barge Canal, the Kindred Dam, Worley Flats, and the Kickapoo River Dam. Colonel Werner had already expressed the Corps' reservations about letting the EAB become embroiled in controversial areas, but Stoddard was insistent. He felt that applying the proposed guidelines to the projects and then comparing the results with comments received from Corps adversaries would clarify the usefulness of *Environmental Guidelines*.¹⁷ It was finally decided to send questionnaires to various environmental groups.

Interestingly enough, the Tennessee-Tombigbee Waterway, an extremely controversial project to enable vessels to go from the Tennessee River to Mobile Bay, did not appear on Stoddard's list. However, the Board



Major General Francis P. Koisch
Director of Civil Works
1969-1972

did ask why the environmental study for the project only considered ways to reduce undesirable effects rather than the broader question of whether the waterway should be constructed at all. A skeptical observer of the EAB, Major General Francis P. Koisch, Director of Civil Works, curtly dismissed this objection: the project was past the point at which such issues could be debated.¹⁸

On 10 December 1970 General Clarke made public the Corps' *Environmental Guidelines* in a speech to the Lower Mississippi Valley Flood Control Association in New Orleans.¹⁹ The document candidly admitted that the Corps, responding to the wishes of the American people, had been preoccupied with economic growth and development. Today however, Clarke proclaimed, the demands for resources must be reconciled with the need to preserve our natural environment. To this end the Corps "will encourage and support efforts to bring the best existing ecological knowledge and insights to bear on the planning, development and management of the Nation's water and related resources."²⁰ *Environmental Guidelines* obligated the Corps to insure public participation in planning projects and to analyze and evaluate the environmental effects throughout the planning, design, and construction stages. In cases where the environment might be adversely affected, the projects were to be modified to lessen or eliminate the damage. Four general environmental objectives for the Corps were listed:

- a. *To preserve* unique and important ecological, aesthetic, and cultural values of our national heritage.
- b. *To conserve* and use wisely the natural resources of our Nation for the benefit of present and future generations.
- c. *To enhance*, and use wisely the natural and man-made environment in terms of its productivity, variety, spaciousness, beauty, and other measures of quality.
- d. *To create* new opportunities for the American people to use and enjoy their environment.²¹

The net effect of *Environmental Guidelines* was the creation of a more sophisticated planning process. Every study would include a clear statement of the problem and would address various environmental features which needed to be protected, preserved, or developed. In short, the Corps was to develop a new sensitivity to the environment and the public interest.²²

Nevertheless, EAB members still had reservations about the Corps' commitment. They had not reviewed the final draft of *Environmental Guidelines*, and they found the publication disappointing. For one thing, they wanted more explicit guidelines that included procedures to address and assess properly all environmental impacts of a project. Also, they maintained, even greater effort was required to involve "the general public and particularly conservation-environment interests in the development and review of proposed plans and other activities."²³ Other recommendations of the Board included (1) a thorough evaluation of the backlog of Corps projects in order to reappraise their effect on the environment, (2) the deauthorization of those projects that would cause serious environmental deterioration, (3) the continued incorporation of environmental as well as engineering concerns in post-authorization planning, and (4) "a much greater willingness" by the Corps to deny a permit on environmental grounds—the burden of proof should shift to those desiring a permit.²⁴

The EAB discussed some of these problems at the third meeting, held in San Francisco on 3–4 December 1970. Colonel Werner explained that the Corps had concluded that longer drafts of *Environmental Guidelines* would not have been sufficiently clear to those charged with implementing the new directives.²⁵ Harold Gilliam disagreed. He thought that the document was too general and susceptible to negative reaction. Clement pressed the Corps to give environmental matters the highest priority and suggested that the Corps urge the Water Resources Council (WRC) to do the same. Moreover, the Corps needed to strengthen its environmental staff.

In response to specific questions and suggestions from Gilliam,²⁶ the Corps agreed to distribute *Environmental Guidelines* to the public as a pamphlet. Gilliam also wanted to know whether the Corps could develop a rigorous definition of "environmental quality," but the Corps thought that the more general description was sufficient. In response to questioning about adequate public access to open meetings, one Corps observer noted that such meetings were held when working people could normally attend; and although local people did not "guide" any project, they did have, in effect, veto power. The Corps was not ready to accept one suggestion, namely, that environmental advisory boards be required on the District level; but instructions were being prepared on how Districts could get environmental advice. In-house training programs, meanwhile, were being established to orient Corps personnel to environmental matters. The Corps did not agree, as had been recommended by some Board members, that environmental costs should—or could—be included within the total costs of a project. Finally, the Corps had embarked on several research, floodplain information, and land

use programs which addressed environmental considerations.²⁷

The EAB reviewed several projects in the South Pacific Division. Some Board members thought the projections for the area to be served by the proposed Worley Flat Dam on the Pescadero Creek were self-fulfilling.²⁸ By way of illustration, Gilliam suggested that not constructing the project could halt the anticipated population growth in the region. Stoddard asked why the Corps should get into what was essentially a local protection problem. The entire matter of the work on the Pescadero was left open pending further conferences between the Corps and local interest groups.

Stoddard next raised the subject of the questionnaires sent to various environmental groups about controversial projects. He complained that the Office of the Chief of Engineers (OCE) had done little to resolve problems identified by the groups. Indeed, the Corps' approach seemed more suited to that of an advocate than of an objective planner. He recommended that a reappraisal team be established to review certain projects. Clement suggested that the Corps drop some of the "old dogs," projects which had been authorized long ago. General Koisch noted, however, that the backlog of projects was not large, totaling some \$2 billion in value. Beyond that, no project could be revived without express authorization of Congress. Major General Carroll H. Dunn, Deputy Chief of Engineers, agreed with Caldwell that the best way to deauthorize a project was by appealing to individual congressmen.²⁹

A month after the San Francisco meeting, Stoddard sent a long letter to Clarke in which he elaborated the EAB's concerns about the Corps' project evaluation procedures. Two paragraphs from the five-page letter present the basic issue:

1. The environmental groups have raised a number of issues which appear to us to be legitimate and substantive. In this regard, we would like to call to your attention that the facts as noted by the environmental groups are substantially different from those identified in the Corps Fact Sheets. It is worth noting too, that some of these do not relate to environmental quality alone but to economic and other considerations; most important, the failure of the Corps to give sufficient consideration to alternative solutions. On the matter of environment, per se, the general attitude of the opponents has probably been expressed best by one group which called the Corps environmental statement "... and exercise to [*sic*] advocacy rather than objectivity."

2. We note in the information we have received from both sides very little substantive effort on the part of the Corps to address or resolve these issues. We find little evidence of any initiative by your field offices to respond directly to the points raised by the principal opponents of the projects in an objective manner. We have no indications that your Washington office plays any active role in mediating or arbitrating these controversies or other wise attempting to resolve them. In most instances, the attitude of the Corps toward project opponents appears to be, at best, defensive and, at worst, antagonistic. We find in some cases, in fact opponents believe, that the Corps appears to be out vigorously "selling" its proposals and promoting opposition to the

opponents before project authorization. The climate is certainly not conducive to fruitful discussion or resolution. It is no wonder that many of these conservationists have felt forced to resort to political activism or even litigation. What we find, at any rate, is a serious communication problem.³⁰

Stoddard noted that reappraisal of projects usually occurred only after a national controversy developed. In order to anticipate and respond to environmental issues before the Corps became involved in public controversy, several actions were suggested:

1. The assignment of one "broadly experienced planner from your office with a solid background in environmental considerations to act as your own personal representative."
2. The convening of a meeting by the Chief's representative to discuss a controversial project. The participants would include "the Division and District Engineers involved, the *one* civilian member of the review team who knows most about the project, regardless of grade, and the principal representatives of opposing environmental groups. If possible to do so, a member of this Board should be asked to participate."
3. Prior to the meeting, the initiating District Office should provide a statement indicating how the project originated, the specific objective it seeks to accomplish, and why it must be undertaken at that time.
4. Issues which could not be resolved at the meeting should be clearly identified. "The Corps, under the supervision of the Chief's representative and in coordination with opponents, should develop a detailed plan for the study and evaluation of the issues in conflict."
5. The results of the meeting and the plan of study, with review and comment by opponents, should be submitted to the Chief and the Advisory Board for review, comment and approval.
6. "Under the general direction of the Chief's representative the responsible office should conduct the study as approved, with full coordination with the opponents and using consultants acceptable to both sides wherever advisable."
7. "The results of the study, the meeting and final fully documented recommendations should be submitted to the Advisory Board and to the Chief for discussion at the Advisory Board meeting; at which point the Board would make its recommendations to the Chief. The final decision, of course, would be up to the Chief."

Stoddard listed eight controversial projects which the Board felt could be used to test the above approach:³¹

- Kindred Dam (Sheyenne River), North Dakota
 - La Farge (Kickapoo River), Wisconsin
 - Logan Dam (Clear Creek), Ohio
 - Salem Church (Rappahannock), Virginia
 - Pescadero Creek (San Mateo County), California
 - Forked Deer (Obion Rivers Project), Tennessee
 - Lower Granite Dam (Snake River), Washington, Oregon, and Idaho
 - Gillham Dam (Cossatot River), Arkansas
- The Corps examined Stoddard's letter cautiously. In general, the OCE Civil Works Directorate felt that existing procedures dealt with most

problems effectively, and "a procedure for handling exceptional cases should not be activated until routine procedures fail."³² Corps personnel also noted that certain modifications would need congressional approval. In all cases, however, "selection of projects for exceptional treatment and reevaluation should be by the Chief of Engineers in consultation with EAB."³³

At the next EAB meeting General Clarke delineated his position on the Board's proposals. He had two major reservations. First, he feared that members would "probably lose credibility with their constituencies" if they became involved in the details of handling problem projects. Second, the intrusion of OCE personnel at the District level would destroy the Corps' decentralized organization. When District and Division Engineers faithfully followed OCE guidance, problem projects could be handled and resolved in the field.³⁴

Clarke's comments cleared the air but hardly reconciled opposing views, for it was evident by the end of 1970 that significant differences existed between the Chief's expectations of the EAB and the Board members' perceptions of their roles. Clarke had hoped that the creation of an advisory board of environmentalists would convince Corps opponents of his sincere effort to incorporate their values into project planning. However, almost all the EAB members joined the Board with a skeptical "show-me" attitude. Gilliam probably reflected the feeling of his Board associates when he answered the rhetorical question "Why did I join the Board?":

The chief reason was curiosity. Perhaps the most urgent issue of our time is the conflict between engineering and ecology; development and conservation; technology and the environment. Can this nation, dominated for two centuries by the drive for development, now change its course and begin to give high priority to the natural systems that nurture all life on earth? I could think of no better place to look for an answer than in a continuing around-the-table confrontation between engineers and environmentalists. If it did not work out, I reasoned, I could always resign.³⁵

Certainly cooperation, not "confrontation," was what the Chief had in mind when he established the EAB; but the Board's impatience raised obstacles to the relationship he wished to achieve. Members wanted the Corps to change rapidly, and they became frustrated when Clarke's guidance was not translated into immediate action at the District level. For them, the actions of District Engineers were the acid test of the Corps' dedication to environmental values, and these actions could best be evaluated by analyzing specific projects. Therefore, rather than simply providing advice to the Corps' senior managers at the Office of the Chief of Engineers, EAB members sought a greater role at the level of initiating offices. General Clarke, supported by his civil works staff, felt that changes at the District level could be accomplished by preparing explicit guidelines and then insuring that the Districts followed them. Advisory Board members did not wholly agree. The process, for one thing, took too long. More important, though not stated as bluntly, was the question of competence at the District level. Too many District employees

continued to display the "we-like-to-build" mentality and showed little interest in conservation. Board members urged that local environmental advisory boards be established. Indeed, some wished to delegate to the local boards veto power over projects. This of course was impossible. The Chief of Engineers was charged by both the Department of the Army and Congress to make such decisions.

What was to be done? A couple of weeks before the upcoming Vicksburg meeting in March 1971, Clement had testified at a congressional hearing. In response to Senator Philip Hart's question about how the EAB was doing, Clement said that the Vicksburg meeting would provide the answer. However, he later openly expressed his discontent to Colonel Werner. The Board, he felt, was being little used: "One doesn't usually ask for advice unless one plans to use it."³⁶ Clement's colleagues shared his unease. Gilliam, for example, complained at Vicksburg that the Corps' formal reply to his letter of 28 September was "too general and not fully responsive." Foster was anxious that the Board's feelings and recommendations be formally circulated throughout the Corps.³⁷ The growing discontent threatened the future of the EAB. Clement, who was elected to succeed Stoddard as the Board's Chairman, faced a difficult challenge. So did General Clarke.

Chapter III

THE SECOND YEAR: A PERIOD OF ADJUSTMENT

In one of his first acts as Chairman, Roland Clement wrote a letter to General Clarke describing his perception of the basic problem facing the Corps and the EAB:

I would stress again that the problem seems to me more one of philosophical outlook than of specific expertise, although all of us have far to go in objectifying and quantifying the environmental parameters we are concerned about. Since we are essentially involved in trying to optimize human welfare, we will need to clarify our concept of man, and join in redefining national policy to achieve agreed-upon goals. Neither of us is a mere servant of the State, but, rather, we share in spearheading the direction of the State. In short, you can and must influence the Congress as strongly as they influence you through their directives. I hope we can be helpful to you in this difficult but important step.¹

A significant point which Clement had tacitly raised was the responsibility of Congress to protect the nation's environment. EAB members, unlike some environmentalists, had had an opportunity to see the ways in which congressional politics could impede the spirit—if not the letter—of the law on specific projects. Even more significant, in refocusing attention on basic underlying assumptions rather than on the details of projects, Clement provided a healthy reorientation for the EAB, for it was easy to become mired in the complex of projects and issues then facing the Corps. Clarke agreed and, in response to Clement, noted, "We must understand each other's abilities, limitations and points of view. We do have the opportunity to influence the Congress and we always seek to do so with the facts. Separating what is factual and what is opinion in light of the interest currently focused on environmental matters is no simple task."²

No sooner had Clement assumed the Chairmanship than a few incidents occurred which seemed to confirm the worst suspicion of the EAB, that Clarke's message about increased environmental sensitivity was not getting through to his staff. In one case, Colonel Richard L. Hunt, Chief of the Public Affairs Office, OCE, addressed the members of the Contract Construction Course at Fort Belvoir, Virginia. Entitled "Our Public Relations Crisis," the speech suggested that Corps personnel were losing self-confidence because of attacks by environmentalists. Hunt encouraged Corps people to think positively and be proud of their achievements. However, the speech implied that the stereotyped adversary relationship between the Corps and the environmental community still existed: "When the advocates of non-development attack us and our programs, . . . we should be able to count on

**Roland C. Clement, Chairman
Environmental Advisory Board
1971-1974**



the support of more community elements than they. The reason we don't is that we have not consolidated our positions of strength. Instead, we have allowed our attackers to seize them from us by imaginative mobile, penetrative assaults both overt and covert."³

Colonel Hunt's speech aggravated Clement. "We will never get together," he wrote, "on the Corps' environmental performance if key people like you continue to see these differences as 'PR crises'. No amount of PR will alter the environmental crisis which is the real root of our problem."⁴ Clement's annoyance was understandable, as Hunt conceded in a letter to the Chairman. Nevertheless, Hunt pleaded, one must put his comments in the context of an embattled Public Affairs Office, besieged by "a mounting crescendo of criticism which varied from somewhat objective to extremely vicious and emotional."⁵ The public affairs chief likewise agreed that his talk was defensive, but asked whether Clement would have approved his going on the offensive as many in the Corps were "sorely tempted" to do. He denied trying to maintain the Corps' adversary relationship to the environmental community: "As far as my taking an adversary stand is concerned, the problem by definition is one of dealing with people who have set themselves up as adversaries to us."⁶

Two other cases of insensitivity to public concern involved District Engineers. At the end of March, Colonel Vernon W. Pinkey, District Engineer at Tulsa, attacked opponents of the Gillham Dam project, which had

been halted by a federal court injunction until satisfactory impact studies had been completed. Pinkey asked the Chamber of Commerce of DeQueen, Arkansas, to organize a local group in support of the Gillham project. At the same time, he admonished, "Don't start a fight with the conservationists. It won't pay off. Forget it."⁷ Aside from the impropriety of appearing as an advocate of a project, something which Clement did not mention, Pinkey made it appear that the opponents had stopped the project, not that a federal judge had issued an injunction because he felt that the Corps had not satisfactorily performed its job. In a bit of understatement, Clement advised, "it was certainly unnecessary and very impolitic to attack the opponents of the project."⁸ The other case involved Jacksonville District Engineer Colonel Avery S. Fullerton, who called President Nixon's decision to halt construction on the Cross Florida Barge Canal "a bum decision."⁹ "It should be suggested to him," Clement recommended, "that he needs to roll with the punch when the President of the United States intervenes in a decision."¹⁰

Clement's letter created a stir at the Office of the Chief of Engineers. The evidence was irrefutable and clearly counter to the image of the Corps that General Clarke was trying to project. The Chief, however, chose a low-key approach in answering the letter. He described the comments of his public affairs chief and the two District Engineers as "apparently injudicious," and he reaffirmed his desire to "redirect this sense of identification and enthusiasm to lines which we have agreed more closely reflect the general public interest."¹¹ Nonetheless, it was obvious that many Corps employees were not going to let go of old ideas and values easily.

The frustrations and disappointments of EAB members came to a head at the meeting held in Washington, D.C., on 10-11 June 1971. Almost immediately, Clement questioned the Board's actual contribution to the Corps. The decentralized structure of the Corps, he thought, impeded the Board's efforts. He also expressed concern about the continuing public impression that the Corps sought projects and promoted growth for its own sake. Clement and Pough agreed with Foster on the need for more open and public involvement in project planning.

Stoddard turned the Board's attention to the subject of local advisory boards. He thought such boards must be independent of the District office and possibly of the Corps itself. He also broached once more the idea of an appellate review board at OCE level. Reflecting the view expressed by General Clarke several months earlier, Caldwell wondered whether a "truly representative group of people could be found for a District review board." Finally, Stoddard took another shot at the *Environmental Guidelines*, denouncing them for not reflecting the views of the Board. He recommended that the Board not associate itself with the guidelines in its existing published form.¹²

In reply, Clarke emphasized the Corps' responsibility to respond to "the needs of growth." He also maintained that the Corps had developed an efficient review process which met all current requirements.¹³ Beyond that, it

was evident that the Board would not be able to persuade Clarke to delegate his authority to agencies over which he would have less than complete authority. In sum, there still existed a gap between the somewhat idealistic goals of the Board and the practical bureaucratic limits beyond which the Corps could not go.

Stoddard's outspokenness increased during the coming months, causing problems which achieved the dubious distinction of receiving White House attention. On 18 June 1971 Stoddard wrote a long letter to General Clarke in which he attempted to evaluate the first year's work of the EAB. The document amounted to a broad indictment of the Corps' response to Board actions and recommendations. The general thrust was that, rather than offering specific responses and actions, the Corps had simply engaged the Board in meaningless discussions or provided inconsequential draft papers. Again Stoddard articulated the Board's frustration with the decentralized Corps organization and emphasized, "Of first importance is establishment of an independent appellate body with veto power over environmentally harmful federal projects. . . ." He accused St. Paul District and North Central Division of undermining the Board's efforts in the case of the La Farge Dam project on the Kickapoo River. Instead of forming an independent review panel to make recommendations, the District and Division Engineers had pressed the Wisconsin governor himself to conduct the review and had "put him on the political spot by encouraging further pressure for construction from the local people with the most to gain." Stoddard's pessimism was evident throughout his letter. "I must reluctantly conclude," he wrote, "that healthy change in direction and in structure results only from external pressures and criticism because of the internal momentum to continue to do what is familiar, because of natural human resistance to criticism and fear of courting political trouble. . . . In view of our near zero batting average, I am fearful that the Board's existence may be giving the Congress and an anxious public an impression of progress when there is precious little." In a post-script, the former Chairman urged the establishment of a Department of Natural Resources that included the civil works functions of the Corps of Engineers: "The time has come for a transfer of this civilian function from a para-military one and for separating planning from construction in the same agency."¹⁴

On 16 July 1971, Clarke responded to Stoddard's letter. Naturally, he perceived the Corps' activities differently; he was convinced that the Board had had a "positive impact." Its comments and suggestions had been extremely helpful in the preparation of the *Environmental Guidelines*. Furthermore, OCE had exerted great effort to change the direction of field offices; and, Clarke stated, "considering the many problems and obstacles they face, I think for the most part they are doing a good job." Stoddard's interpretation of Corps actions relating to La Farge Dam, Clarke ventured, was colored by his "adversary view. . . . the Corps is not an adversary but an agency of public service; not an arbiter but an evaluator; not a promoter but a professional."

Not surprisingly, Clarke had "a fundamental difference in views with respect to the establishment of an independent appellate body with veto power." His opinion was that the recommending agency should comply with existing laws and follow appellate procedures which had already been established. Finally, Clarke noted Stoddard's reservations about staying on the Board and graciously closed, "If you decide to stay with us, we will be happy to have you."¹⁵

Clarke's tactful reply hardly revealed his true temper. He was, as he later admitted, "miffed" to see Stoddard's letter quoted in James Reston's syndicated column on the same day he received it.¹⁶ Stoddard had never been reluctant to publicize his disagreements with the Corps, but this latest revelation elicited a response from unanticipated quarters. On 9 July Colonel Werner received a call from John Dressendorfer, Special Assistant to the Secretary of Defense. He asked several questions about "Stoddard's problems with the Corps." The inquiries, it turned out, did not emanate from Secretary of Defense Melvin Laird "but from the White House," specifically from "Clark MacGregor, apparently a legislative advisor to Mr. Nixon and a former opponent of Humphrey."¹⁷ Evidently, additional queries came from the Secretary of the Army's office. Werner told Colonel James L. Kelly, assigned to Secretary Robert F. Froehlke's staff, at the end of August that Stoddard was a "'hip shooter' and very vocal." Werner also mentioned that Stoddard did not always work well with his fellow Board members. "The Corps is not comfortable with him as he has created a number of difficult situations for the Corps—but he does effectively represent one point of view." Werner cautioned against forcing Stoddard off the Board, as Stoddard "would make a big stink in the press and could place the Chief of Engineers in an awkward position." However, he admitted that the Corps would be "most receptive" to Stoddard's removal at the end of the normal two-year term.¹⁸

No one was going to "fire" the contentious Stoddard, but few Corps employees were anxious to dissuade him from resigning. Stoddard himself was uncertain what to do. At one point he appeared eager to rehash all his old arguments at the next Board meeting.¹⁹ "I felt the appropriate way to continue the dialogue would be directly," he wrote to General Clarke in explanation of why he had waited months to reply to Clarke's letter. However, he regretted that other commitments prevented his attending the upcoming EAB meeting. In any case, an apparently irreconcilable impasse had developed between Clarke and Stoddard, who wrote, "I am now convinced that an independent appeals system involving the Council on Environmental Quality is the only way to restore public confidence." Finally, Stoddard informed Clarke, "I shall look forward to receiving a report of the next meeting, and will at that time let you know whether my continued membership on the Board will be mutually beneficial."²⁰ With exasperation, Clement, who had grown increasingly weary of his predecessor's pessimism, said, "He wants to see what rabbits I am going to pull out of the hat."²¹ In effect, Stoddard no longer participated in the EAB, and he resigned on Earth Day, 22 April 1972.²²

At the Louisville meeting of the EAB on 28–29 October 1971, General Clarke reiterated his view that the Board “is making a real contribution . . . particularly so in the area of environmental impact statement preparation.” He admitted that the Corps was still trying to improve its environmental analysis; but at the same time Clarke felt that the Council on Environmental Quality (CEQ) had not furnished enough guidance. In the case of the controversial Tennessee-Tombigbee Waterway, almost \$1 million was being spent on environmental studies.²³

In his opening remarks to EAB members, Clement talked about the “honeymoon period of getting to know each other” being over. He praised the public participation program of the Corps and commended Seattle District for its open planning.²⁴ Then Clement suggested areas of greater public involvement. One was in the preparation of environmental inventories. Another was in exerting greater influence on general policy statements. This latter recommendation echoed General Clarke’s earlier guidance, but it was especially welcome coming from the Chairman of the Environmental Advisory Board.²⁵

The Board endorsed and supported the preparation of area environmental reconnaissance inventories. Clement in particular was enthusiastic about the project. When the Environmental Assessment Work Group had been established at OCE in mid-1971 to plan for the development of environmental inventories, he had assumed the responsibility of providing coordination between the work group and the EAB. He offered advice to the group and, equally important, publicized its activities.²⁶ Clement worked closely with David Aggerholm of IWR and Lieutenant Gerard Bertrand of OCE, two people whose efforts contributed most to the success of the enterprise.²⁷ While the inventories were actually being prepared, Clement invited environmental organizations to help, emphasizing the potential value of the work in identifying important environmental resources.²⁸ Eventually eight inventories were completed, using multicolored maps and extensive commentary to detail the cultural and natural resources of selected geographical regions. These oversized folios were published by OCE in the following sequence:

1. Provisional Environmental Reconnaissance Inventory of the State of Washington (January 1973)
2. Environmental Reconnaissance Inventory, Charleston District (February 1973)
3. Environmental Reconnaissance Inventory of the State of Vermont (March 1973)
4. Inventory of Basic Environmental Data, South Louisiana—Mermentau River Basin to Chandeleur Sound with Special Emphasis on the Atchafalaya Basin (September 1973)
5. Environmental Reconnaissance Inventory, North Carolina (December 1973)
6. Environmental Resources Inventory of the Lexington, Kentucky, Urban Area (September 1974)
7. Inventory of Basic Environmental Data, New Orleans–Baton Rouge Metropolitan Area (March 1975)

8. Environmental Resources Inventory of the Metropolitan Region of Nashville, Tennessee, and the Mid-Cumberland Development District (June 1976)

Seattle District updated and edited the provisional Washington State inventory with the support of the Institute for Environmental Studies of the University of Washington. Then it was published by the Government Printing Office in January 1975 as the *Washington Environmental Atlas*. This handsome publication received wide acclaim. One item which distinguished it was the mention of Sasquatch, or "Big Foot," who, if not mythical, was certainly an endangered species.

The National Environmental Policy Act (NEPA) became the focus of an agitated discussion at the seventh meeting of the EAB. General Koisch complained that minor issues seemed to stop many projects. A procedure was needed, he suggested, to throw out "nonsense items." Furthermore, the financial burden for project delays should rest on the plaintiff in the form of a reasonably high bond.

Clement was not sympathetic. He thought that the Corps' environmental impact statements were inadequate. Guidance sent to the field contained only procedural material and nothing of substance. If the Corps "did a proper job on the 102 statement [EIS] they would not be subject to injunctions. . . . the suits we have gotten seem to be because of poor or non-existent statements." The reaction to Clement's assertion was intense. Several Corps employees objected; and, although discussion was long, nothing was resolved. Clement offered however to assist the Corps in obtaining more explicit guidance from the Council on Environmental Quality.²⁹ Shortly after the meeting, Clement acknowledged to Clarke that he "may sometimes appear to be ungrateful for the progress all of you are making." Nevertheless, on the question of environmental impact statements he was adamant: "You must not let OCE staff assure you that present 102s are as yet adequate. . . . the challenge is to make these 102s truly helpful assessments of the trade-offs and alternatives so that the public will *know* that the Corps is willing to expose the options to public scrutiny rather than going along with the silence that can favor only special interests."³⁰

Environmental impact statements remained the center of attention at the May EAB meeting. General Clarke summarized the legal challenges to these statements; and a copy of a speech by E. Manning Seltzer, OCE General Counsel, was distributed which analyzed ways in which environmental groups attempted to force the cessation or modification of Corps projects. At the time sixteen projects had been stopped through suits or court action.³¹

The EIS discussion focused on ER 1150-2-507, "Planning: Preparation and Coordination of Environmental Statements." This regulation, published on 3 January 1972, delineated the procedures and necessary interagency coordination which field offices were to follow in the preparation of impact statements. Clement reiterated his conviction that the new regulation required

more substantive material. One difficult obstacle to EIS preparation, several participants remarked, was the difficulty of assessing social impact. In response to a judge's comment that too much money had been spent on the Gillham environmental study, Clement asserted that the Engineers must continue to dedicate excessive money and manpower until they became as good environmentalists as they were engineers.³²

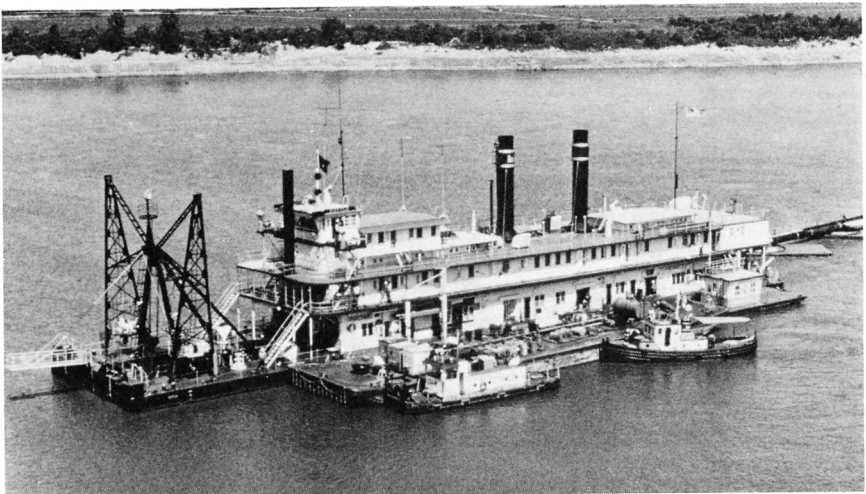
In May 1972 two new members joined the Board. Dr. Lois Sharpe was a professional geologist and staff coordinator for environmental programs and projects for the League of Women Voters. Dr. Richard Backus chaired the biology department at the Woods Hole Oceanographic Institution. They filled vacancies created by the resignations of Stoddard and Foster. The latter had resigned at the last meeting because of new responsibilities resulting from his appointment to the state cabinet of Massachusetts.

By the end of the Board's second working year, a good relationship had developed between the EAB and the Corps. Members of the Board understood the advantages of working within the Corps and genuinely appreciated the Corps' efforts to keep them informed. More important, in the words of Clement, they had come to realize that the Corps "is more scapegoat than culprit in the current environmental controversy."³³ For its part, the Corps had come to value the constructive criticism—even the professional skepticism—with which EAB members greeted certain Corps projects and policies. In the words of General Clarke, the EAB "has been valuable in providing an environmental sounding board of proposed policies and actions of the Corps and has provided the perspective and perception needed to insure proper consideration of the environmental aspects."³⁴ In short, the EAB had proven its worth and could now devote complete attention to its function of helping the Corps protect and preserve the environment.

Chapter IV

THE THIRD YEAR: NEW CONCERNS AND RESPONSIBILITIES

By the summer of 1972, the Board was becoming increasingly involved with subjects other than environmental impact statements and project planning. General Clarke had in fact encouraged the Board to investigate such diverse areas as urban studies, dredging, and deep port construction.¹ Tentative steps in this direction had already been taken, but with the meeting at Williamsburg, Virginia, 11-12 October 1972, the EAB indicated its readiness to go in new directions. Departing significantly from earlier themes, this session was devoted mainly to dredging and coastal research activities. The Corps also briefed the Board on its efforts to cope with the Hurricane Agnes disaster.



The Dredge *Potter*, one of the Corps of Engineers dredge boats doing work on the Mississippi River.

In regard to dredging, Caldwell and Clement opposed the current way of paying for the disposal of polluted spoil. The cost was borne by the Corps' maintenance budget rather than by the polluters through effluent taxes or a "no-discharge" policy. Clement felt that the failure of local interests to pay full cost precluded properly balancing social and economic costs, while Caldwell observed tangentially that the issue of disposal site selection was part of the larger problem of developing good land use planning at the state and local levels. The Corps could not be blamed for poor local planning.²

Colonel Ernest D. Peixotto, Director of the Waterways Experiment Station (WES), outlined the current status of the Dredged Material Research Program, which had been authorized by Congress in the 1970 Rivers and Harbors Act. The principal goal of the program was to assess the environmental impact of dredging and dredged material disposal operations and then to find suitable remedies. The challenge was enormous since half of the 500 million cubic yards of dredged material disposed of annually in the United States was polluted. The total cost of the four-year program was estimated at \$30 million. It was an ambitious project, and Colonel Werner invited the Board to monitor the study as it progressed.³

At its February 1973 meeting the EAB again returned to its favorite subject, environmental impact statements. The session was the first devoted largely to a discussion of one geographical area, the Atchafalaya Basin in Louisiana. The Atchafalaya problems were among the most difficult facing the Corps. The issues centered—and still did seven years later—on the need to provide navigation and flood control while protecting valuable wildlife areas. Demands made by sportsmen and regional interest groups complicated the question. In addition, a significant number of environmentalists believed that any attempt to deepen the Atchafalaya was doomed to failure because of heavy siltation.



Building levees along the Atchafalaya River.

A draft environmental impact statement on the Atchafalaya had been circulated in February 1972. Reflecting the new spirit of cooperation, copies of the draft were distributed to various environmental groups. To the Corps' distress, both the Audubon Society and the National Wildlife Federation objected strenuously. The New Orleans chapter of the Audubon Society opposed the project partly because channeling the Atchafalaya would support Morgan City interests at the expense of others, including New Orleans. "We do not doubt that this juggling of the regional economy will be convenient to the oil industry," the local Audubon director wrote, hinting at collusion

between the Corps and petroleum interests.⁴ Furthermore, the National Wildlife Federation found the draft “so inadequate that it denies the right of the Federation and others to make meaningful comments.”⁵ Ironically, this conclusion followed four pages of comments.

During the New Orleans meeting, the Board was given a land and air tour of the Atchafalaya. Then members gathered to analyze the problem and listen to Corps presentations. Clement immediately expressed his agreement with those who thought that the project was at best a holding action. Nature, as he put it, would silt up the basin eventually. Colonel Hunt, the New Orleans District Engineer and Clement’s former antagonist in the Public Affairs Office, agreed with the Chairman that the backwater areas were valuable and productive. He emphasized that an effort was being made to protect these areas. Gilliam suggested that “channelization” was a bad word, full of negative connotations. By way of highlighting Gilliam’s remark, General Clarke averred that some organizations oppose any channelization. Toward the end of the meeting, attention was directed to the Cache Basin in Northeastern Arkansas (Memphis District), another area where plans for straightening, digging, and enlarging (approximately 154 miles of Cache River and 77 miles of Bayou DeView) had run into intense opposition from environmentalists because of the threat to fish and wildlife.⁶

General Clarke’s last appearance before the Environmental Advisory Board was at the meeting in Washington, D.C., on 15–16 May 1973. In a morning session closed to the public, he reflected on his years with the Board. Bemoaning the amount of paperwork required by the National Environmental Policy Act, Clarke suggested that the environmental improvements which had resulted were probably not worth the effort it took to achieve them. On the other hand, Clarke felt that the Board had been worthwhile. It had sensitized the Corps to environmental concerns and “helped the Corps establish a fair degree of credibility in the environmental area.” Caldwell, in response, noted two reasons why NEPA required excessive paperwork. First, the act required public access to environmental impact statements. Second, the “courts have complicated the process resulting in an above average amount of litigation.”⁷

In the afternoon program Colonel Werner explained the four basic elements of the Corps’ environmental program:

1. Reorienting Corps thinking and education
2. Increasing Corps expertise—bringing skilled people on board
3. Publishing procedures, policy, and guidance
4. Conducting research and emphasizing public participation

The ensuing review focused on environmental impact statements. Werner stressed that the Council on Environmental Quality looked upon these statements as decision documents, and the council’s guidelines emphasized this view. Richard H. Macomber of the Board of Engineers for Rivers and Harbors (BERH) reported on an analysis of 855 Corps impact statements, of which 208 had had their status changed: 144 projects modified, 17 projects

dropped, 43 projects delayed, and 4 negative reports. Macomber also identified three major problems in dealing with the impact statements. The first problem involved consultants, who were poorly selected, often went beyond the scope of their contract, and whose work was insufficiently checked. Second, funding for the development of impact statements was not always provided at the right time. Finally, there was not enough coordination with the Environmental Protection Agency (EPA) and the Fish and Wildlife Service.⁸

During the afternoon session on the next day, a discussion occurred on "What direction should the EAB take in the future?" Clement, who had indicated his desire to retire from the Board, pointedly asked if the Board should continue at all. Some members had earlier suggested that the entire Board should submit their resignations to make it easier for the new Chief of Engineers, Lieutenant General William C. Gribble, Jr., to decide the Board's future. However, OCE rejected this suggestion because such a mass resignation might be misinterpreted. Clement also had suggested that the EAB probe deeper into individual projects to see how the members might help in a constructive way, not, as Stoddard had wished, as an adversary designed to keep the Corps "honest." At the EAB meeting, however, Caldwell countered with a recommendation to concentrate more on policy than on technical issues.⁹

Major General John W. Morris, Director of Civil Works, OCE, proposed that the EAB support the Corps in helping the states to develop comprehensive water plans. Also the Board could analyze the floodplain management program. Clarke advised the members to examine Corps solutions to major national problems. As far as the Board's composition and method of operation were concerned, the Chairman proposed stronger representation from the various environmental groups, while Caldwell suggested that the Board publish an independent annual report.¹⁰

One subject which was not discussed thoroughly, but was on Harold Gilliam's mind, was the publication of a document that would consolidate and publicize the Corps' environmental policies. In a letter to Clarke on 5 January 1973, Gilliam had inquired about the status of this project, which had been previously recommended by the Board and accepted by the Corps.¹¹ On 10 April, Colonel Werner and Gilliam met in San Francisco to discuss the document. They decided that it should be written for the public, free of jargon and packaged in an attractive format.¹² Shortly after the May EAB meeting, Clarke approved the awarding of a contract to the well-known nature writer Charlton Ogburn to write an environmental brochure.¹³ For the next two years, Gilliam and Lieutenant Colonel John Wall, Werner's replacement, worked together to monitor Ogburn's progress.¹⁴

With the retirement of General Clarke, the relationship between the EAB and the Chief of Engineers entered a new phase. Although succeeding Chiefs shared Clarke's interest in cooperating with the EAB, they did not continue his efforts to maintain a direct dialogue. Without question the amount of time Clarke had spent communicating with Board members had

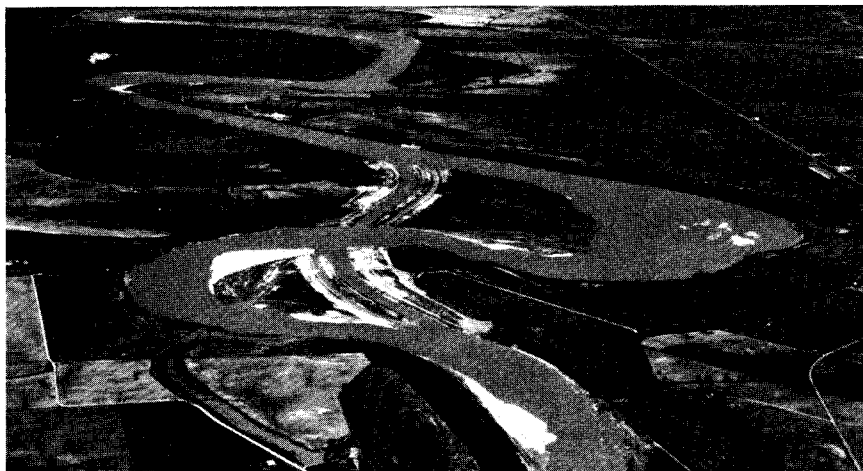


Lieutenant General William C. Gribble
Chief of Engineers
1973-1976

taxed his ability to deal with other significant items. Therefore, once Clarke left, the Director of Civil Works and his Assistant for Environmental Programs became the major liaisons between the Corps and the Board. Still, it should be emphasized that the difference was of degree, not of kind. Generals Gribble and Morris willingly communicated with Board members whenever necessary.

In the interim between Clarke's retirement and Gribble's appearance at OCE, General Morris, as Director of Civil Works, assumed the responsibility of working with the Board. In the middle of May 1973, he asked his staff to review two options available to the EAB in the future. One was to address specific items of work which the Corps expected to perform in the future. The other was to consider "roles and missions which the Corps of Engineers might undertake in the near and long term."¹⁵ Included in the first option were such projects as the Tennessee-Tombigbee, Red River, Trinity, modernization of the Ohio River, deepening of various harbors, and hydroelectric projects on the Columbia and Missouri rivers. Future projects which, according to Morris, probably would be undertaken were improvements on the Illinois Waterway, pollution control in Lake Erie, and the extension of navigation to Wichita, Kansas. More uncertain were plans for channeling the Missouri River, managing urban wastewater, and solving regional water supply problems.¹⁶

The experience and background of EAB members obviously helped determine which issues the Board could profitably address. With the resignations of Caldwell and Pough in the summer, the majority of charter members had left; and careful attention was given to finding suitable replacements. In response to Morris' May paper, Irwin Reisler, Chief of the Civil Works



The Clarence Cutoff on the Red River Waterway.

Planning Division, recommended that the Board be “composed of specialists who will be actively involved in assisting the Chief of Engineers on special items of work. Such a Board should be more technically than generally oriented to evaluate social, environmental, economical, and engineering aspects of major projects.”¹⁷ Specifically, he recommended that the person replacing Caldwell have similar capabilities; however, Pough’s replacement should be an environmental engineer. Colonel William G. Kratz, resident member of the BERH, was thinking in more political terms when he suggested that the new appointments come from geographical areas not yet represented on the EAB, that is, the South, Southwest, Missouri River Basin, and Columbia River Basin.¹⁸

Kratz was particularly enthusiastic about Dr. Clarence Cottam, Director of the Rob and Bessie Welder Wildlife Foundation in Sinton, Texas. According to Colonel Kratz, Cottam was “one of the most respected *senior* biologists in the nation” and the “father” of the 1946 Fish and Wildlife Coordination Act.¹⁹ General Gribble accepted the recommendation. Along with Cottam, Dorn Charles McGrath, Jr., was named to the Board. McGrath was Chairman of Regional Planning at George Washington University, Washington, D.C. He had lectured on environmental matters to academic and nonacademic groups around the country.²⁰ To everyone’s satisfaction, Clement agreed to stay on as Chairman of the Board for a while longer.

Morris worked with Clement during the summer to improve the Board’s responsiveness to Corps concerns. They agreed that EAB meetings should focus on selected programs. Morris was enthusiastic about making floodplain management the theme of the next meeting, and General Gribble concurred.²¹ Along with the two new appointments, the coordinated efforts of Clement and Morris insured an easy transition as the EAB met the new Chief of Engineers for the first time in November.

Chapter V

THE GRIBBLE YEARS

Before he left OCE in the summer of 1973, Colonel Werner observed that the main benefit derived from the Board was the opportunity to see members react to Corps actions and planning. "The EAB," in his words, "gives us a perspective we cannot otherwise gain so well."¹ Nevertheless, according to Colonel Werner, the Board would never become deeply engaged in any one subject because members' time was limited and their interests were diverse. Occasionally, however, individual members might become more actively involved in certain projects.² Werner accurately described the Board's limitations and virtues, for, while General Gribble in his first EAB meeting solicited the Board's continued advice and criticism, there was little doubt that its role would rarely extend beyond advisory responsibilities.

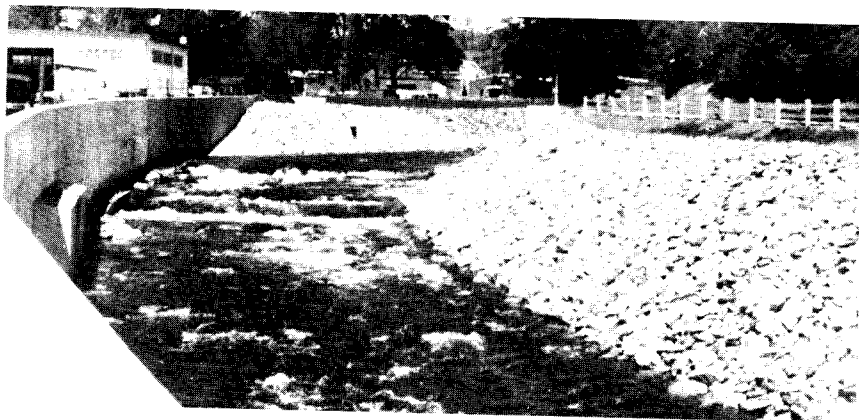
The Board, as Werner later indicated, did not always recognize the influence it had on the Chief. There were several reasons for this. First, its influence usually was reflected in the revision of policy, not in a new direction on a specific project. And once the policy was implemented, the results were not readily evident. A few Districts were simply unresponsive. Neither the creation of the EAB nor the changes in Corps philosophy had yet affected the thinking of some individuals. Even within OCE there was an "impermeable layer," as Colonel Werner put it, of employees unreconciled to new environmental considerations.³ Bureaucratic inertia, in short, precluded the possibility of quick change. Still, as Daniel A. Mazmanian and Jeanne Nienhaber have shown in their book *Can Organizations Change?*, the change in the Corps was quicker than in most water resources organizations. However, it was a change which could be appreciated only in retrospect.

There was no question either that the Chief's desire to meet new environmental goals made heavy demands on Corps personnel. In the November EAB meeting General Morris observed that NEPA had "broadened the Corps planning engineering base, but it has slowed down projects." As of November 1973 approximately 800 impact statements had been prepared, of which 100 involved projects in operation, and the rest applied to projects under construction or in the planning stage. One major remaining bottleneck was the 900 impact statements needed for maintenance dredging activities. Morris calculated that it would take fifteen years to eliminate this backlog.⁴

The Corps was also busy responding to requests for studies and information from other government agencies. One important report, done at the request of the Office of Management and Budget (OMB), dealt with nontraditional flood control measures. The report, summarized before the

EAB in November, concluded that the federal government could properly become involved in watershed management in order to reduce the effects of flooding, flood proofing, and certain relocations. Cost sharing could be used for these measures as well as for more traditional approvals. Perhaps of more interest, the report advised that the number of favorable reports on Corps projects would increase when traditional and nontraditional approaches were mixed. This, in turn, would actually reduce federal costs because less money would be spent on disaster relief, preparation for flood emergencies, and subsidies for flood insurance.⁵

Irwin Reisler suggested to the EAB that floodplain management had two objectives: (1) utilizing both structural and nonstructural solutions to design and build justified and needed improvements to protect property from flooding, and (2) guiding the development and use of floodplains to serve multiple purposes in the overall public interest. He pointed out that Congress was particularly interested in relieving urban populations from fears of catastrophic flooding, while responding to concerns over the environmental impact of projects in heavily populated areas.⁶



North Ellenville, New York, Flood Control Project, an exercise in urban floodplain management.

The question of flood prevention in urban areas had become critical to the Corps. Even as the EAB met on 6 November, the voters of Eureka, California, voted two to one against the proposed Corps of Engineers Big Butler Dam. San Mateo County officials had already shelved Corps plans for the Worley Flat Dam on the Pescadero Creek. On the other hand, both state and local officials supported a project on Morrison Creek, close to Sacramento, which used natural channels and wetlands rather than concrete structures.⁷ Clearly, the Corps had to look at solutions other than large dams to prevent flooding in urban areas. To do this, the Corps Urban Studies Program had been established. Twenty-eight studies, included in this program in the fall of 1973, covered urban areas scattered around the entire country.⁸ As the program developed, more areas were added.

A week after the November Board meeting, former EAB member Richard Pough complimented General Gribble for the Corps' work on floodplain management. He also paid an unexpected tribute to the Corps:

You have a great organization that has had the wisdom and sensitivity to adjust with remarkable speed to the radical changes that are taking place in the way society looks at the environment. It took the United States Department of Agriculture and the Forest Service forty years to finally admit that Smokey Bear wasn't telling the whole story.⁹

Pough recommended that the Chief have his staff prepare a few questions on topics of concern before each EAB meeting. By responding to these questions, EAB members would provide the most assistance to the Corps.¹⁰

General Gribble liked the idea, and General Morris agreed that there was merit in providing members "the general nature of the issues" which the Corps wished the Board to address in the future.¹¹ At Morris' direction, Colonel Wall, Werner's replacement, drafted eleven questions for the EAB.¹² Of these, four were selected and sent to Roland Clement:

- a. What role should the EAB play?
- b. What is an appropriate U.S. Army Corps of Engineers policy toward Federal and non-Federal development in wetlands?
- c. In view of political and legal constraints, how might the Corps encourage non-traditional flood control approaches in its discussions with the public?
- d. In reviewing environmental impact statements prepared pursuant to NEPA, many people feel the statements should be expanded to fully detail the considerations involved in the planning operation and, in effect, that they should be the decision documents. We view the planning report as being the decision document with the environmental planning being an integral part of the total planning process. Accepting that this is now being done, what is your view of the role of the EIS?¹³

Questions b and c were in fact discussed at the next EAB meeting, held on 26-27 February 1974. Professor McGrath took the lead in responding to both queries. He stressed that wetlands were scarce and delicate resources; therefore, federal policy should oppose development. However, controls often came too late and, once implemented, were frequently violated by the federal agencies. For example, Housing and Urban Development (HUD) insured mortgages in areas where it should not. Answering the second question, McGrath noted the need to educate both Congress and the public. The Corps, he further advised, should provide information, guidance, and enforcement assistance to local agencies. Also, the Corps needed to incorporate other viewpoints in project planning.¹⁴

In keeping with the agreed theme, Gilbert F. White, a nationally known water resources expert, gave a long presentation on floodplain management. General Morris pointed out that although the Corps suggested actions to prevent encroachment on the floodplain, implementation was left to the localities. White encouraged the Corps to have a staff able to present alternatives to traditional solutions, for example, the nonstructural project

on the Charles River in Boston. McGrath emphasized that the Corps should "pose sharp questions" to localities on the validity of local zoning in a floodplain.¹⁵

The EAB's prolonged identity crisis was once more an issue at this meeting. Gribble praised the Board for recommending many changes that had considerably improved Corps environmental policies. The most important problem to which the EAB could now turn, Gribble ventured—departing from the subjects raised in his letter to Clement—was to identify environmental issues and problems the Corps had overlooked. Next, the EAB should provide advice "aimed not only at alleviating or resolving past issues but more importantly, at preventing problems arising in other projects or in general Corps programs." The Chief did not think that the modus operandi of EAB meetings needed to be changed, but he did recommend that time be set aside "for the Board to lecture to the Corps staff." Clement told Gribble that the Corps should bring "focused problems" to the EAB and "allow us sufficiently long lead time so that our reactions and views will not be impromptu." Gilliam warned, however, of developing a "rather long, unmanageable list of tasks" for the Board. It was risky to take up too many cases; the number should be limited.¹⁶

But limiting the number was difficult; there were always too many questions, too many controversies. Before the day was out, Gribble himself raised two more issues for the Board's consideration: (1) How does the concept of mitigation fit the problems faced by the Corps in this area, and (2) What is the jurisdictional responsibility of the Corps once land use regulation is initiated?¹⁷ It was obviously difficult for OCE personnel to decide what were the primary issues the EAB should address. The Chief's extemporaneous remarks about mitigation and land use revealed as much. There was always the temptation to turn to other topics and issues. The confusion was understandable considering the number of legislative and judicial measures to which the Corps had to respond. Any attempt to predict future changes in the environmental field was frustrating at best; often it was impossible. Consequently, planning usually meant responding to immediate pressures rather than long-term concerns.

As a result, it was not easy to keep the EAB out of the controversies of the day. A judicial decision or a new law could significantly affect the future role of the Corps; and the EAB, even if it wanted to, could not consider distant issues as if current problems were irrelevant. B. Joseph Tofani, Chief of the OCE Policy and Analysis Division, warned Board members that they should not be identified with controversial problems: "Be careful of your professional reputation. You are more important as advisors that stay on the sidelines. Be generalists." Gilliam asked, "In other words the EAB should not be a decision body?" Tofani replied, "Correct."¹⁸

Tofani's views were not shared by everyone. Colonel Wall thought that it was futile to keep the Board out of controversial projects. On the contrary, he encouraged members to analyze specific projects and make

recommendations.¹⁹ This was the case at the August meeting in Little Rock, Arkansas. Colonel Joe H. Sheard, Fort Worth District Engineer, talked about the San Antonio Channel project, which employed nontraditional approaches to flood control. One striking aspect of the project was a beautiful walk that bordered and crossed the river at various locations in the middle of town. Alongside the walk were attractive restaurants, shops, and hotels. In response to Clement's questions, Sheard admitted that the initiative for this project came from the city; however, the Corps was being more aggressive in other projects, for instance the Fourche Bayou and Dark Hollow projects in Little Rock.²⁰ Also, Colonel Donald G. Weinert, Little Rock District Engineer, noted various devices used by the Corps to mitigate adverse effects of the McClellan-Kerr Waterway. These devices included two water-oriented parks to enhance historical sites, three green-tree lakes for waterfowl, and comprehensive shoreline management, planned in cooperation with state and local interests, which provided for fifty-eight parks along the Arkansas River.²¹

Impressed by the shoreline management approach, Gilliam asked why such a scheme was not mandated for all Corps projects. He felt strongly that such an effort was essential for a successful project. Colonel Weinert demurred, suggesting that this conclusion went beyond engineering judgment. Wall came to Gilliam's defense, arguing that the Corps often considered nonengineering factors in protecting the overall public interest. Nonetheless, Weinert insisted, the Corps had selfish reasons for doing so: "It gives us a tool to tell a major permit applicant they can't put in a dock or foundry."²²

With the failure of congressional leadership in land use planning, Sharpe argued that states must become more energetically involved. She admitted that there may actually be advantages to this approach since "it is difficult to define what we need nationally." Clement noted that the Corps must accept some responsibility for the education of Congress. Weinert responded that he was nervous about the Corps making value judgments. Clement did not sidestep the objection. "Every decision is a value judgment," he asserted, "and I'm glad you're nervous." Still, Sharpe agreed, many people would not want the Corps making value judgments; however, the Engineers could and should demonstrate alternative solutions.²³

This particular EAB meeting was the first that met in two locations. On 27 August, it met in Little Rock. Then it reconvened on 29 August in Tulsa, Oklahoma. Here, one of the major subjects of discussion was the Corps' responsibility in urban floodplain management. EAB members were particularly interested in discovering means by which the Corps could prevent private developers from changing stream beds before the development of comprehensive plans. The Tulsa District Engineer, Colonel John G. Driskill, thought that the Corps had no role in a "city's judgmental decision-making." McGrath countered that the Corps had an obligation to insist on open discussion of flood problems and solutions. He also proposed that, although half a channel was better than nothing, the Corps and the city

should not encourage a developer without having the plans for the entire flood control project.²⁴

Two subjects raised at the August meeting, fish and wildlife mitigation and maintenance dredging, continued to be discussed when the Board met again in December. The exchange on mitigation in both meetings revealed how little agreement existed on the subject, aside from the common desire to reduce or, if possible, eliminate adverse man-made effects on fish and wildlife. Agreement was impossible, if for no other reason, because definitions were confused and occasionally conflicting. The very word "mitigation" could not be interpreted to everyone's satisfaction. Clement called mitigation a "stopgap solution" which begged the question of the degree to which federal resources should be committed.²⁵ Clearly, zero effect on the environment was the ideal, but hardly realistic. Maybe, as the EAB Chairman suggested, a national policy on land use was required; but Congress was reluctant to sit in the driver's seat.

At a Division Engineers' Conference held between the two EAB meetings, Corps personnel asked basic questions about mitigation policy: What were the real "damages" caused by a specific project? What truly needed to be mitigated? What methods could be employed, and which were considered most favorable to the Corps, the Department of the Interior, the public, and the states.²⁶ These questions, as well as additional comments, were sent to the EAB before the December meeting. Wall, meantime, contacted Lynn Greenwalt, Director of the Fish and Wildlife Service, and invited him or his representative to participate in the next EAB meeting.²⁷ Greenwalt could not come to the December program, but his representatives, Karl Stutzman and Arthur Dickson, gave a detailed presentation of the Department of the Interior's position on mitigation.²⁸

The maintenance dredging issue began in August, when Colonel Wall and Warren Papin of OCE briefed the Board. Clement became suspicious because he interpreted the briefing as an apology for continued expansion of the waterways system.²⁹ In September, after studying the written version of the briefing, he became convinced that it overstated the economic contribution of waterways. He found particularly offensive the statement that "continued economic and population growth *requires* continued expansion of port and associated facilities."³⁰ The Chairman commented that the real problem was the Corps' old dredges. They could not be replaced because of a congressional moratorium pending a clarification of the division of labor between the Corps and private industry. He warned that it was past time for the Corps to recognize plant (mainly vessels) and cost constraints, as well as those of the environment: "the Corps must play a much more impartial role if it wishes to be accepted as the public's servant instead of just another agent of a growth philosophy. . . ."³¹

Two weeks later General Morris, writing on behalf of General Gribble, answered Clement. He stated that any bias toward continued waterway expansion was not the "intended purpose or thrust" of the briefing. Morris

emphasized that the briefing concerned only maintenance of navigation channels in existence before NEPA. As a matter of fact, dredging had been stopped on a few channels and was done in others only to depths required by shallow-draft commercial fishing vessels.³²

A new member of the Board, Brock Evans, Washington Director for the Sierra Club, involved himself in the dredging controversy after he had studied the Morris-Clement correspondence. One sentence from Morris' reply particularly upset him; namely, "It has been our experience that we remain under attack for our maintenance dredging in support of existing waterways from some who would use environmental issues as a cloak to cover their intent to stop all maintenance dredging." Evans reacted strongly. It is "the kind of broad-brush and unfounded statement which should not be coming from officials of a powerful, visible, and highly respected agency such as the Corps of Engineers. . . . I do not think that either the direct statement itself nor the implications from it are justified at all."³³ In response Morris stressed that, although "irrational discussions" with environmental professionals or "sincere opponents" were rare, there were persons who cared little about means as long as their ends were served. These were the people described in the statement.³⁴



**Dorn Charles McGrath, Jr., Chairman
Environmental Advisory Board
1974-1978**

The December meeting was the first for both Evans and Durbin Tabb, an aquatic biologist and the general manager of Tropical Bioindustries Development Company of Miami, Florida. Another significant personnel change was the resignation of Clement, who was honored for his work by both his fellow Board members and General Gribble. McGrath succeeded him as EAB Chairman. Harold Gilliam was now the only charter member

still on the Board. Finally, shortly after the December meeting, Wall was replaced by Lieutenant Colonel John R. Hill, Jr., as Assistant Director of Civil Works, Environmental Programs.

Under Clement's leadership, the Board had gained influence and won added respect from the Corps. Meetings had usually been structured to address specific problems. After Clement's departure, Board agenda tended to be more flexible. Even more attention was given, however, to two issues which had often been of concern to members—urban studies and public participation. Urban studies was of special interest to McGrath, who taught urban planning at George Washington University. Lois Sharpe, active with the League of Women Voters, concentrated on public participation. The two issues dovetailed in the May 1975 meeting after a presentation by Huntington District on two urban studies in Huntington and Charleston, West Virginia. This program involved such key questions as flood control, wastewater management, and fish and wildlife conservation in these urban areas. McGrath, Sharpe, and Gilliam praised the studies, particularly the extent of public involvement. Sharpe emphasized that the term "public" meant more than elected officials. It also included planning agencies, government facilities, civic organizations, and interested citizens.³⁵

The public also included some people who, usually unknowingly but sometimes purposely, issued misleading information about Corps projects. These misstatements had become an increasing burden to the Engineers, and the Corps sought EAB advice on what to do about them. The Board advised Corps officials to respond publicly whenever the Corps was wrongly attacked. Articles, too, should be written explaining the Corps' position. Members discussed Ogburn's draft environmental brochure. The author did not want it published under his name and had suggested it be put out under the imprimatur of the EAB, while Gilliam advised that it be printed under the Corps' name.³⁶ The problem became moot when it was decided not to publish the document at all.

Ogburn was a well-published author on environmental matters, and both the Corps and the EAB had high hopes for a quality product that would be well received by the public. Unfortunately, these hopes were not realized. When Ogburn's thirty-page draft was read, many OCE personnel thought that it was slanted and too long and that it failed to address some of the major criticisms leveled at the Corps. In the words of Hill, "My own impression from reading the latest effort . . . is that if published in anything approaching its present form it will subject us to ridicule among the audience we are trying to reach."³⁷ Morris recollected, "It wasn't worth a damn. And you can put that in the record. It was a poor job. . . . I just didn't think it was worthy of a Corps of Engineer publication."³⁸ Ogburn's contract was not extended, nor did the Corps find an adequate substitute.

An altogether different problem raised by EAB members concerned reorganization within the Office of the Chief of Engineers. Specifically, the reduction of personnel in the Environmental Resources Branch of the Planning Division distressed the Board. Harold Gilliam had already complained

about this in early May. Morris explained that the personnel were simply being spread throughout OCE in order to allow better integration of environmental concerns into the overall program. An environmental planner would be put in each geographical branch within the Planning Division; and Dr. C. Grant Ash, Chief of the Environmental Resources Branch, and his assistant were transferred to the Office of Policy. The intended impact was not to downgrade but to upgrade environmental functions.³⁹ Morris' explanation did not convince Board members, however; and the reduction of the Environmental Resources Branch to a section particularly upset them.⁴⁰ In coming months McGrath continued to express concern about the reorganization. He and his colleagues simply did not believe that the changes had not reduced the "clout" of the Corps' environmental planners.⁴¹ Nevertheless, the reorganization remained intact.

Throughout this time Board members continued to express doubts about their own responsibilities. Little substantive advice on specific projects had been asked of them, nor had they been eager to offer such counsel, at least since the Stoddard years.⁴² Given this situation, it was difficult to agree on the Board's precise role. Still, members obviously felt that continuing contact with the Chief was worthwhile in itself. With justification, they could also take some credit for making the Corps more sensitive to nonengineering solutions.

Continued doubts among Board members raised an interesting question: was the Corps on the verge of becoming a truly environmental organization which no longer needed an advisory board? Some projects which had generated severe criticism of the Corps had been scotched or indefinitely delayed, mainly because of opposition from local interests. This was true with the Worley Flat Dam in California and the Red River Dam in Kentucky. President Nixon had halted construction on the Cross Florida Barge Canal. Meanwhile, the Corps had established with commendable energy a regulatory program to carry out its responsibilities under Section 404 of the 1972 Water Pollution Control Act. This section authorized the Corps to issue permits for the discharge of dredge or fill material into navigable waters. Even such a long-time antagonist as the Natural Resources Defense Council complimented the Corps for its "thoroughness, the efficiency, the tact and dispatch" with which it embraced the 1972 act.⁴³

At the November 1975 meeting, Major General Ernest Graves, the new Director of Civil Works, presented a civil works update which increased self-doubts among EAB members. Graves reported on progress in resolving problems with Lock and Dam 26; the Red River, Kentucky, project; and Tocks Island. The Tocks Island case (upper Delaware River) was particularly revealing since the Division Engineer, Major General James L. Kelly, formerly on the Secretary of the Army's staff, had approved the project after a restudy had been completed. Then, once the Delaware River Basin Commission had decided against the development, Kelly and Gribble both recommended deauthorization.⁴⁴ Therefore, whether through political pressures or

Major General Ernest Graves
Director of Civil Works
1975-1977

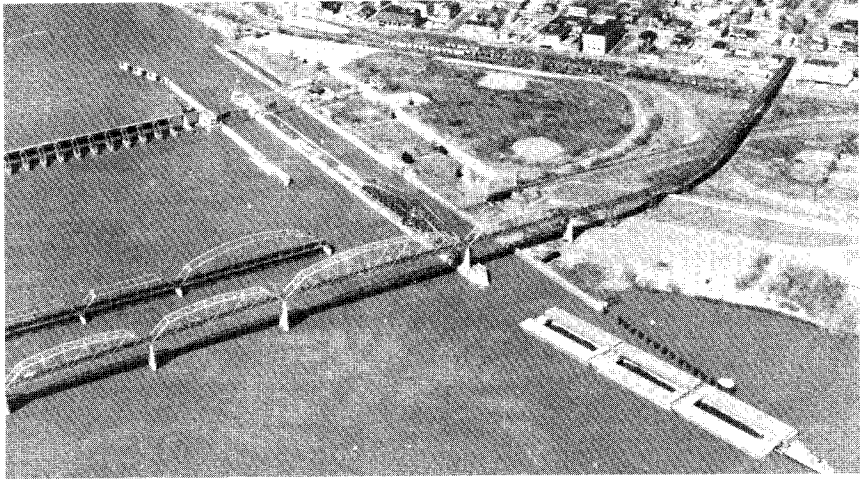


internal examination, problems were being resolved; but it was difficult for the EAB to see how it influenced the process.

Since it had agreed not to involve itself in specific projects, the Board was bound to have a subtle rather than dramatic impact on the Corps. But even having conceded this point, members began to wonder seriously whether they were indeed “window dressing.” Even General Morris, now Deputy Chief of Engineers, who had always supported the EAB as Director of Civil Works, questioned the Board’s future. “My main concern,” he wrote Gribble, “is that it never does anything—I’m not sure it should, but I am sure it costs a lot of money for what we get out of it.”⁴⁵ He recommended that the Board review the Corps’ environmental guidelines and spend less time listening to briefings on such items as regulatory programs, urban studies, and the Endangered Species Act.⁴⁶

The Board’s predicament was dramatized in 1975-76 with the creation of the Corps’ Environmental Action Program (EAP). Established in response to directives of Victor V. Veysey, Assistant Secretary of the Army (Civil Works), the program was designed to make the Corps a leader among federal agencies in conservation and environmental enhancement. It would help the Corps meet national environmental objectives by addressing seven principal areas: new environmental guidelines, better communication with government and nongovernment agencies, increased public involvement, an improved planning process, new technology, new environmental regulations, and new missions.⁴⁷ The Board first learned of the EAP in April 1976 and was naturally interested. Gilliam, who was attending his last meeting, reminded his colleagues that an earlier Board had once recommended local

advisory boards at the District or Division level. Questions still remained about how policy was to be implemented at the District level. Graves stressed that policy would be established only after careful coordination between OCE and the field.⁴⁸ This enigmatic statement did not satisfy the Board. Furthermore, the conclusion was inescapable that the Corps had initiated an internal housecleaning program in the environmental area without meaningful consultation with the Board. Rather, the EAB was simply being offered the opportunity to review a *fait accompli*.



Old Lock and Dam 26 on the Mississippi River by Alton, Illinois.

Was the Board only to be a traveling colloquy on the relationship of man to nature? Signs pointed that way. For instance, the April meeting was to be used to “gain a better appreciation of the importance of wetlands to man.”⁴⁹ General trends increasingly displaced substantive issues on the agenda. The Board, having gained a voice and exerted some influence, even indirectly, now seemed to be less consulted than ever. Clearly, General Morris, who replaced Gribble as Chief of Engineers on 1 July 1976, faced some basic decisions about the future of the Environmental Advisory Board.

Chapter VI

THE MORRIS YEARS

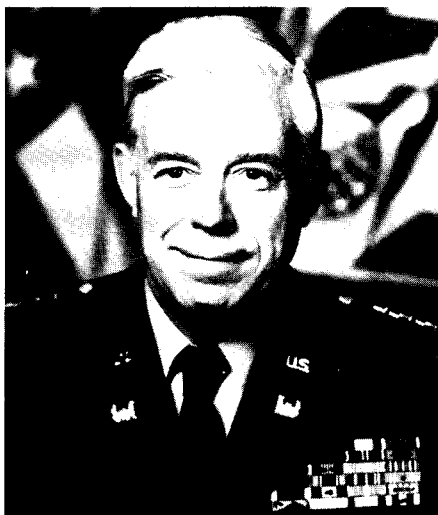
Shortly after becoming Chief of Engineers, Morris met with McGrath to discuss the "optimum uses of the Environmental Advisory Board." They decided that the time was opportune for the Board to reexamine its mission and its effectiveness.¹ Consequently, the meeting in the fall of 1976 was more unstructured than usual. The Board was asked to evaluate national environmental trends for the next ten years and, based upon its evaluation, identify activities and opportunities for the Corps of Engineers in the next three years. The Board was also supposed to select a recipient for the Chief of Engineers Environmental Excellence Award.² After a day in which the Board collected its thoughts on these subjects, McGrath presented a verbal overview to the Corps. However, he began with some comments on the management of the Board itself. Members recommended that Board terms be limited to no more than four years. Also, they urged the Corps to put an economist on the EAB.³

Turning to the subjects at hand, McGrath noted the emergence of a national environmental ethic. The Board members, particularly Sharpe and McGrath, saw that the growing impact of this ethic in urban parts of the United States would require the Corps to become more sophisticated about urban environmental design. The Corps needed a better knowledge of the complex institutional problems involved in urban planning in order to solve the problems facing the nation's cities. EAB members also asserted that the Army Engineers must better educate people about their responsibilities and about environmental matters in general. Interdisciplinary activities should be encouraged. Finally, the Corps itself needed better forecasting procedures. Too many "soft," or imprecise, numbers were being used.⁴

General Morris' thoughts complemented the Board's. He felt that the Engineers had become environmentally sensitive and should therefore not react defensively to attacks against it. He himself was dedicated to insuring the proper integration of environmental considerations into Corps planning. In fact, the first policy letter he issued, on 8 October 1976, was entitled "Environmental Guidelines for the Civil Works Programs." Later that month, the revised "Environmental Policies, Objectives, and Guidelines" was published in the *Federal Register*. This summary updated the *Environmental Guidelines* published in November 1970. A major change was that the beginning of point c was revised to read "To restore, maintain, and enhance the natural and man-made environment" rather than only "To enhance."⁵

Meanwhile, Morris had been “grappling” with the problem of what to do with the EAB. Indeed, he admitted at the spring 1977 meeting that he had been wondering about that question for the last four or five years. Progress had been made however, and “we’re finally getting close to a workable way to do business, where you do help us with specifics.” With sizable understatement, he observed that “some real tough problems” were still left for the Board to consider.⁶

Lieutenant General John W. Morris
Director of Civil Works, 1972-1975
Chief of Engineers, 1976-1980



There remained the question of how the Board was to address these problems. From the EAB’s inception, there had always been discontent among some Board members over the lack of progress from meeting to meeting. Stoddard had blamed the Corps staff for trying to control the agenda too tightly, with emphasis on discussion and social events rather than on resolving issues.⁷ To some extent, Morris agreed. He thought that the Board spent too much time talking about how to get laws changed and issues resolved. “But then,” he recalled, “we’d sit and talk about our limitations on getting it done. Then the Board meeting would be ended. We’d have a cocktail period or something and go away. . . . We had gotten to a point where we had gotten practically all of the good we could get out of that format.”⁸ Therefore, Morris and McGrath developed an improved way of operating the Board, which closely resembled what General Gribble had established nearly three years before, but had seldom been practiced. Specific questions were sent to the Board for its consideration. Then members would meet in a “workshop session” the first day and report to the Chief on the second.⁹

This new format was only imperfectly implemented at the May 1977 meeting, where mitigation of adverse effects on fish and wildlife was the major topic. While the Board did attempt to address specific questions, it did not allow itself enough time for discussion and analysis. The EAB advised the

Corps to protect the integrity of natural resource systems. Engineers had to realize that some natural features were not elastic; for example, land was a finite resource. Therefore, members insisted, echoing earlier Boards, mitigation had to become a part of all project engineering. There was no one desirable measure of mitigation. The development of habitat equivalents for mitigation purposes appeared promising, but fraught with potential for abuse. Habitat improvement seemed to offer advantages, but needed to be viewed carefully. Federal agencies had to work together on the mitigation problem.¹⁰

Events beyond its control hindered the Board's effectiveness in 1977. For one thing, new members joined the Board in the spring, and they needed time to learn about the Corps. Taking seats on the EAB were Gerald McLindon, Dean of the School of Environmental Design at Louisiana State University, and Stanley A. Cain, a former Assistant Secretary of the Interior, who was currently a visiting professor at the University of California, Santa Cruz. Cain had also served as the Director of the Institute for Environmental Quality at the University of Michigan. Meanwhile, Richard Backus retired from the Board. In addition to these changes, new personnel came into OCE. The most important officer transfer occurred in July, when Major General Charles I. McGinnis replaced General Graves as Director of Civil Works. McGinnis, formerly the Southwest Division Engineer, had attended a Board meeting in Little Rock in 1974. Because of these personnel changes, as well as an intensive review of the Board by the Department of Defense (see appendix B), it was decided to postpone the fall 1977 meeting. Nearly a year passed before the Board met again in March 1978.

This meeting was the second held at Airlie House, near Warrenton, Virginia. Morris and McGrath had agreed that the Board should use the occasion to review the Corps' performance since 1970. Hence, the theme became "NEPA plus 8 years." The day before the meeting began, EAB members met with Corps staff in a stimulating workshop session. The next day McGinnis presented an overview of the Corps' response to NEPA, and he provided the Board with a draft chronology of Corps actions in the environmental field over the last eight years.

EAB members arrived at a number of conclusions regarding the Corps' environmental record. On the credit side, they were impressed with the Corps' professionalism, its regulatory programs, the extent of public participation, the environmental training programs, and the development of multidisciplinary staffs. Major weaknesses included the esoteric language of Corps regulations; the lack of dissemination of technical information to universities, professional societies, scientists, and the general public; and too little interaction between the Board and the staff. Members stressed that there was much unfinished business facing the Engineers. There was still no mitigation policy. Too many managers without environmental training were being promoted to senior positions. Research in wetlands development and in nonstructural flood control solutions needed to be continued. The contri-

Major General Charles I. McGinnis
Director of Civil Works
1977-1979



butions made by the Corps' environmental atlases required reevaluation. Finally, members urged the Corps to become more involved in monitoring certain projects to assess environmental effects. They also encouraged the Corps to work more energetically in the field of public education. The Board suggested that in the future the Corps should address such challenges as strip mine rehabilitation, the construction and maintenance of railroad beds, and the construction of wastewater treatment facilities.¹¹

The March meeting marked the first time that the Board focused attention on the military functions of the Corps as well as on civil works activities. Colonel Charles E. Sell from the Office of the Assistant Chief of Engineers briefed the EAB on the Army's new environmental program. This program was designed to accomplish national environmental objectives at Army installations. The Board reacted favorably to the progress reported in this area.¹²

The EAB went through further personnel changes in mid-1978. McGrath, Tabb, and Evans left in March. McLindon became the new Chairman,¹³ and four new members were appointed. Nicholas L. Clesceri came from Rensselaer Polytechnic Institute. A professor of civil and electrical engineering, he specialized in water pollution and eutrophy. J. Henry Sather was graduate dean and professor of biology at Western Illinois University, with expertise in animal ecology and wetlands research. Dee Ann Story was a research scientist and associate professor of anthropology at the University of Texas, who was particularly concerned with archaeological preservation. As such, she brought to the Board expertise and insights that had not been present before. Finally, the general counsel of the National Wildlife Federation, Oliver Houck, also became a member, thus retaining on the

Board at least one representative from a nationally known environmental group. In August, Lieutenant Colonel George F. Boone replaced Hill as Assistant Director of Civil Works, Environmental Programs.

The large turnover determined the agenda at the next meeting, 30 October–3 November 1978, for the new members required basic orientation briefings. In keeping with the new emphasis on military functions established at the last meeting, it was moreover agreed that the meeting would involve tours of some Army installations. Several choices were offered the Chief of Engineers, but he finally decided that visits to Fort Lee and the Radford Army Ammunition Plant, both in Virginia, would be most instructive. Later, at the suggestion of the Army Training and Doctrine Command (TRADOC), the trip to Fort Lee was switched to Fort Eustis in Tidewater Virginia.¹⁴

With such a large turnover, preliminary workshop sessions were pointless. Instead, after a day of briefings at the Forrestal Building in Washington, D.C., the group flew to Fort Eustis, where the post facilities engineer provided an orientation the following day. At Norfolk, the District Engineer welcomed Board members and gave them an overview of the activities under his direction. On 1 November, the Board traveled to the Radford arsenal in southwest Virginia and toured facilities there. It arrived back in Washington that evening and on the next day held a general discussion about the trip.¹⁵

After the discussion Dean McLindon talked to General McGinnis about the Board's findings and conclusions. He thought the session had been informative; however, it raised "a number of fundamental issues." According



**Gerald J. McLindon, Chairman,
Environmental Advisory Board, 1978-1982.**

to McGinnis, McLindon questioned "the whole approach to environmental treatment." He thought that perhaps the Radford arsenal's environmental efforts were undermined by a production-oriented staff. Turning his attention elsewhere, the EAB Chairman relayed the Board's concern over the Corps' willingness to accept state environmental standards which were below "optimum levels." The Corps, it was suggested, should require a higher level of compliance. The Board also wondered if the whole planning procedure of the Corps might be outmoded. McGinnis and McLindon agreed to make this a subject for a future EAB meeting. There was concern, too, over "whether the Corps was getting its money's worth in historical and archaeological areas." Members recommended using the expertise of the National Park Service in this regard. A cautionary note was also sounded over the use of benefit-cost analysis. Clesceri suggested that it be replaced by a risk-benefit approach, which balanced the predicted benefits of a project against potential risks to both the environment and human welfare; General Morris later noted that cost-benefit analysis was mandated by law, thus tying the Corps' hands. In conclusion, Dean McLindon recommended that mitigation and water supply problems be considered as subjects for future meetings.¹⁶

Impressed by the Board's potential, Morris wanted the EAB to work harder, preferably meeting four times a year. Lieutenant Colonel Boone, who had been advised by Hill to "unload" the Board on somebody else if possible, also realized the EAB could be valuable, but only if significant changes were made in its operation. He decided that, in order for the Board to be most effective, it should submit written reports and recommendations after each session, which could then be circulated to Corps offices for written responses. In this way, a continuous, written dialogue between the Corps and the Board would be insured. Furthermore, Board members could see how successful they were in having their recommendations translated into specific actions.¹⁷

This plan was first tried at the EAB meeting in June 1979, which took place during the four-day Civil Works Environmental Conference held in Chicago. Actually, this conference combined several previously approved conferences, including the EAB, the Clean Water Act of 1977, and the District Engineers planning conferences. Combining these events was expected to save from \$50,000 to \$75,000. Approximately four hundred people attended.¹⁸ The Environmental Advisory Board had expected to meet again in March or April 1979, but Boone could not find a time when all members were available. The problem of finding a time agreeable to Board members irritated Morris, who wrote to McGinnis:

We seem to be missing the point somewhat. The Board should meet at COE's call, not at their convenience. Get on a 4 months schedule and hold them to it or get board members who can participate. If we don't need the board let's abolish it—if we do then make it work for us. I'd like to continue it one more year at least.¹⁹

Despite some reservations, Morris went along with the idea of having the Environmental Conference; and, as he later admitted, it turned out to be a

great success. The conference included addresses on various environmental problems, ten different workshops on environmental matters, general sessions relating to Corps problems, and summaries given at the end. Corps senior officials and environmental personnel from throughout the country attended, including engineers as well as those associated with the natural and social sciences. Also present were representatives from other federal agencies with environmental responsibilities. The conference came to be, in Boone's words, the "benchmark of today's environmental activities in the Corps."²⁰

One of the first things the EAB discussed at the conference was the seating of alternates at Board sessions. A misunderstanding between Houck and the Corps prompted the question. A teaching engagement prevented Houck from attending the June meeting, and he attempted to send one of his associates from the National Wildlife Federation in his place. Boone disapproved because Houck had been sanctioned by the Secretary of the Army's office as an EAB member, and regulations prevented substitutions. Moreover, Boone pointed out that individuals were appointed to the Board, not organizations, as Houck seemed to think. The National Wildlife Federation had no "seat" on the Board.²¹ EAB members agreed with Boone, adding that the use of alternates "would seriously impact continuity of study and discussions. . . ." The Board advised the Chief of Engineers to disallow alternates and to encourage members to attend meetings whenever possible.²²

In an all-day session on Thursday, the EAB analyzed the Corps' planning process. Morris suggested, by way of introduction, that perhaps the process described in Engineer Pamphlet 360-1-10, "U.S. Army Corps of Engineers and the Environment," was not accurate. He thought that the EAB might rewrite parts of this pamphlet. In his address, McLindon summarized recent Board positions on a number of issues. He lauded the Corps for being "strongly professional" in carrying out its functions in a fish-bowl atmosphere and for using multidisciplinary teams, although he noted that some Districts did this better than others. He also listed some weaknesses within the Corps:

1. Failure to describe the regulatory program in terms understandable to the public
2. Lack of or low quality of exchange of information with the public, agencies within the Corps, and other professionals
3. Lack of explanation to the public of Corps missions or processes—how missions are assigned and carried out
4. Shirking responsibility for educating the public on environmental issues
5. Too little emphasis on cultural resources

McLindon closed by suggesting that perhaps one day there would be no need for NEPA, once the public became convinced that the Corps (and other federal agencies) automatically considered environmental issues.

After McLindon's address, Stanford University researchers Charles M. Brendecke and Leonard Ortolano presented a summary of their study, "Environmental Considerations in Water Resources Planning by the Corps of Engineers." Some of their major concluding "speculations" were (1) there is a

significant relationship between hierarchical control and dialogue with outside interests, namely, the more control, the less contact with the public; (2) promotion might depend on favorable reports; and (3) the more controversy, the more control is exercised in an effort to achieve consensus. Morris took strong exception to the second point, insisting that promotion did not depend on the number of construction projects a District or Division Engineer had supervised. Dan Shanahan, Deputy Chief of the OCE Planning Division, described the planning process as it was meant to function. He furthermore noted the problem of getting Congress to pay for mitigation, for instance, for an ecological preserve.

Later in the session, the audience and Board members divided into discussion groups to examine various matters relating to planning. Major General Robert C. Marshall, Division Engineer of the Lower Mississippi Valley, one of the discussion leaders, observed that his group agreed that present regulations were not timely and were overly complex. "Some folks who write regulations have never been in the field," he complained. Nearly all agreed that no more regulations were needed. An interesting discussion also developed about the lack of a real environmental branch in the Office of the Chief of Engineers and about the primacy of engineers over environmentalists within the Corps. One Corps environmentalist asked rhetorically, "How do environmentalists get to the top, to the management positions?" A question was raised about whether District offices should have separate planning and environmental offices. The implications of these questions upset Morris, and he responded that he wanted to depend on leadership and the review process for insuring proper integration of environmental issues: "The chief environmentalist is the District Engineer."²³

The following morning, McLindon summarized the EAB's findings. He suggested that, though everyone engaged in environmental matters can be called an environmentalist, there are professionals who are specifically trained to incorporate environmental issues into the planning process. The Corps should recognize these professionals. Therefore, the Board suggested several changes: (1) all professional environmentalists (by training) should be identified in the same way that professional engineers are identified; (2) positions requiring little engineering experience should be identified; (3) District Engineers should consider establishing an environmental affairs office which would maintain contact with the public and with other professionals; and (4) there was an urgent need for a separate environmental unit in the Chief's office.

Other recommendations were made regarding the planning process in general. The Board repeated what had been said many times before: regulations must be simplified. Also, the public should become involved in the planning process at the earliest possible time. The Office of the Chief of Engineers should learn of problems out in the field before regulations were drafted; and, once implemented, regulations should be periodically reviewed by OCE.

Morris concluded the conference with some significant observations. He rejected the idea of an environmental office directly under him. The office headed by Boone coordinated environmental activities in the civil works area. On the military side, Colonel Sell in the Assistant Chief of Engineers' office was in charge. Morris also insisted that environmental branches in each District would not work; the multidisciplinary approach would not be helped by developing new functional areas. Leadership was the important thing. All District and Division Engineers must address environmental matters. Moreover, it was "hogwash" that promotion depended on favorable reports. In fact, in Morris' experience, "the program directors that come up in my mind as being poorest are those who send in favorable reports which can't stand the test." Morris once more asked the EAB to tell him whether the pamphlet on the Corps and the environment needed revision, and then he spent a considerable amount of time discussing the relationship between engineers and environmentalists. It would take time to work out all the problems, he indicated; but the Corps could not allow cliques to grow within it. On one hand, he was offended by the implication "that those who call themselves environmentalists have found the Holy Grail. And those of us who are engineers did not participate. That's wrong." But he also lambasted engineers who, as he put it, thought they were the only ones who could tell the District Engineer which way the sun rises. The two sides had to start talking to each other. Environmentalists must not think that engineers cannot understand national environmental objectives, but engineers must learn to listen to environmentalists first. In closing, Morris expressed his "utmost confidence" in his District and Division Engineers. The only thing that bothered him was the lack of consistency from District to District. It was important that the Corps work together as a team. "We have to keep in mind that our mission basically is to be the nation's finest engineering asset."²⁴

This comment left little doubt that Morris believed the Corps first and foremost to be a body of engineers. While obviously in favor of multidisciplinary planning, he was not going to change the organization of the Corps in such a way as to raise questions about the professional orientation of the agency. What, by implication, he was willing to concede, however, was that the responsibilities of engineers had changed. In order to perform their duties now, they needed advice and support from other professionals—biologists, botanists, archaeologists, and historians, to name only a few. It was critical that the Corps remain aware of this obligation. Therefore, Morris asked the EAB to monitor the Engineers' environmental sensitivity, as reflected in policy, training, and implementation. If the Board did this work consistently and thoroughly, then he was ready to be fully supportive. If, on the other hand, the Board was indeed becoming window dressing, he did not see any sense in retaining it. Morris had turned the relationship between the Corps and the Board upside down. Six or seven years earlier, it was the Board challenging the Engineers to measure up. Now, it was the Corps asking the same of the EAB.

The Board responded admirably. It was determined to give to the Corps substantive comments and recommendations about the environmental concerns raised in Chicago. Consequently, these same issues were also studied at the next meeting, which was held in Alexandria, Virginia, on 19-21 September 1979. As before, the major subject was the place of environmentalists in both the planning process and the Corps' organizational structure. However, this time Houck was present, and he used the opportunity to ask some probing questions. Why did the Corps have no conservation goals? Does the Corps ignore expensive conservation solutions? Where are the environmentalists in the Corps' structure? Who makes the decisions? Who "scrubs" (examines) environmental impact statements, and when are they finally submitted? The Corps' environmental activities were probed from every direction as the Board sought weaknesses and searched for answers.

The EAB identified three major areas that needed to be improved in order to integrate environmental considerations fully into the planning process:

1. The number and position of environmentalists in the Corps
2. Deficiencies in the environmental review process
3. Difficulties in the permit review process²⁵

The Board's criticisms were pointed indictments of the Corps' planning abilities. Summarized, the judgment was "that environmental personnel are not equal partners in the planning process." Grades and salaries fell far below those of engineers, and environmental sections were not given equal stature with planning, engineering, real estate, etc.

Working with the Office of Personnel Management (OPM), the Corps needed to develop more rigorous qualifications for environmental positions. Rewards and penalties had to be based on the quality of environmental studies, and more training had to be provided. EAB members also suggested that public participation, though good, be increased and that local advisory "teammates" be selected who could work with District Offices on specific projects. Army Engineers had to promote "the broadest range of conservation options" more aggressively.

The EAB had little good to say about environmental reviews conducted by the Board of Engineers for Rivers and Harbors. The BERH's "scrub" on projects was "too little too late." Even more serious, it appeared incapable of reviewing applications fairly, for it was inadequately staffed, and positions were at "inappropriate grade levels." In fact, according to EAB members, the BERH was "riddled with promotion versus review conflicts." Its proper function, said the Board, was that of a court, with promotion and review responsibilities resting with OCE. Outside opinions from such agencies as the Department of Energy or the Environmental Protection Agency should be solicited. The EAB also criticized the BERH for approving projects without considering the difficult environmental problems, which were handled separately later.

These severe reproofs shocked Corps personnel. Most of the criticism was rejected out of hand. Later, EAB members were invited to attend a BERH meeting to gain a better understanding. McLindon, Sather, and Houck accepted the invitation and observed a meeting on 14 November. While certain concerns were assuaged, there still remained areas in which the EAB and the Corps were unable to reconcile their different perceptions of the Board of Engineers for Rivers and Harbors.²⁶

Turning their attention to the permit system, EAB members declared that environmental positions in construction-operations divisions were both too low in grade and misplaced. These positions should have been in planning and environmental divisions. Furthermore, the entire permit system was reactive; more guidelines were needed. Community education had to be emphasized. The Board also thought that enforcement was "less than rigorous."²⁷

It was decided to write a single comprehensive response to the comments and recommendations emanating from both the June and September EAB meetings. Where the comments were similar, they were



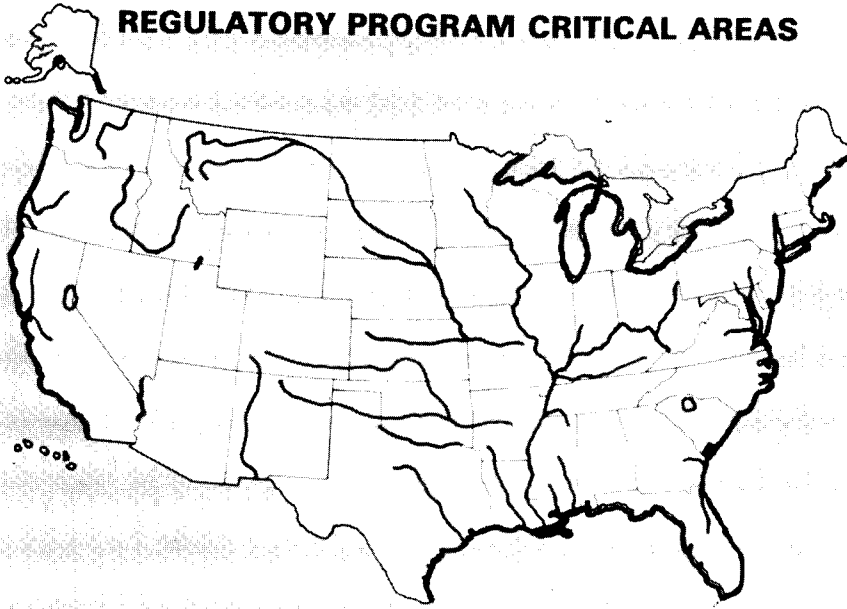
Major General E. R. Heiberg III, Director of Civil Works, 1979-1982.

consolidated. However, before completing the written response, Major General Elvin R. Heiberg III, who became the new Director of Civil Works in July 1979, presented an oral overview of the OCE position at the November meeting of the EAB in Huntsville, Alabama. As a result of this meeting, which concentrated on environmental training, the Board made further recommendations, and the final Corps response also addressed the EAB's comments.²⁸

In four major areas the Corps agreed that further study or improvement was needed: enhancing public awareness of the Corps' regulatory program, increasing training opportunities in the environmental field, separating regulatory functions from the construction-operations divisions, and raising the grade levels of regulatory personnel. Nevertheless, it is difficult to evaluate the overall effect of the Board's recommendations. In May 1980, for instance, George Brazier, Chief of the OCE Construction-Operations Division (Con-Ops), requested suggestions from Division Engineers on improving public awareness of the Corps' regulatory functions.²⁹ Brazier's letter, according to Boone, was a result of the EAB's concern. Curtis Clark, Chief of the Regulatory Functions Branch, on the other hand, claimed that the letter was generated internally; he had never heard of the Board's recommendations.³⁰

The same difference in perception was apparent in regard to questions concerning the organizational place and grade structure of regulatory functions personnel. The initial response of the Civil Works Directorate to the Board was that an "unnatural organization" should not be created by establishing a separate regulatory functions division. This answer, however, did not satisfy General Morris; he told his staff to study further the future of regulatory functions within construction-operations divisions in the field.³¹ Heiberg passed on the assignment to Brazier, who wrote, "I do not think that an across-the-board edict elevating the regulatory functions activity at the district level to division status would greatly improve the quality of the regulatory decisions made by district engineers. If, however, a manpower analysis were made in any given district which proved that the regulatory workload and technical involvement suggested such a change, I would agree to it." Brazier also suggested that in certain Districts it might be possible to elevate the head of the regulatory branch to the same grade as his immediate superior, the chief of construction-operations, without actually creating a separate division. Nevertheless, he saw in any solution some problems, such as extending the District Engineer's span of control or running into conflicts with civil service procedures.³² In reply, Heiberg emphasized that the EAB was not trying to develop regulatory functions divisions in all Districts, but only in those eight or ten where regulatory functions were "big business." He noted that the Board was not interested solely in grades; it was also concerned about a system wherein the operations division head—generally an engineer with many responsibilities—acted as a filter between regulatory functions personnel and the District Engineer.³³

REGULATORY PROGRAM CRITICAL AREAS



Map of critical geographical areas in the Corps of Engineers regulatory program.

Brazier could only repeat himself: if regulatory functions were to be removed from operations divisions, it must be done selectively. He also insisted that the fact that heads of construction-operations divisions were engineers should have no bearing on the matter. "Our reputation as a leader among agencies responsive to the environmental movement has been earned with engineers in charge."³⁴ Colonel George R. Robertson, the Civil Works Directorate executive director and a former District Engineer in Alaska, did not agree that separate regulatory functions divisions should be established in *any* District, although he did concede that another review was needed of grade levels and disciplines within regulatory functions.³⁵ As of June 1980 the issue had still not been resolved.

One area in which the Corps conceded the positive impact of the EAB was in training. The Resource Management Office of OCE asked the Civilian Personnel Office to examine the Board's criticism that environmental training varied widely from District to District. This, in fact, was found to be true. Districts spent anywhere from one-fourth to three man-years in training activities. Moreover, the qualifications of training officers were quite uneven throughout the Corps.³⁶ As a result of this finding, the Corps began to establish better management of training programs in order to establish consistently high quality in the entire organization.

At Huntsville the Board recommended that the Corps develop greater contact with universities, perhaps to the extent of having personnel sit on

curriculum advisory committees or at least serve as guest lecturers. The Chief of Engineers responded enthusiastically to this suggestion, and he sent a letter to the field on 26 February 1980 encouraging such contact wherever possible.³⁷ This program quickly bore fruit in the Lower Mississippi Valley Division. No doubt other field activities will follow suit.³⁸



Members of the Environmental Advisory Board at the Huntsville, Alabama, meeting, 28–30 November 1980. From the left: J. Henry Sather, Nicholas L. Clesceri, Gerald J. McLindon, Dee Ann Story, and Oliver Houck.

An important topic at the Huntsville meeting, of particular interest to Houck, was to what extent the Corps considered national effects when processing permits—national scoping, as it was called. The case of the Portsmouth, Virginia, refinery illustrated this matter. The basic question was whether there were national guidelines the Corps could use to determine if the refinery should be built, or were only local and state interests to be considered. A related matter was the problem of cumulative impacts. By issuing the permit, would the Corps open a Pandora's box of unforeseen evils?³⁹ Shortly after the meeting, Houck expanded his views in a letter to McLindon. Heiberg, Boone, and other EAB members, as well as Michael Blumenfeld, Assistant Secretary of the Army (Civil Works), received copies. Houck asked how many alternatives the Corps should consider in developing its own projects and in evaluating permit applications. In addition, how far should the Corps go to broaden directives from Congress? Finally, when examining permit applications, how limited was the Corps by geographic locations or industrial processes already owned by the applicant?⁴⁰

Blumenfeld thought the last question was particularly significant and wanted Army lawyers to examine existing policies and regulations on the

matter.⁴¹ Brigadier General Hugh G. Robinson, Deputy Director of Civil Works, argued, however, that the Corps should not immediately do a legal study every time there was an environmental problem—"The lawyers can prove anything."⁴² Heiberg agreed⁴³ and asked Colonel Maximilian Imhoff, Director of the Water Resource Support Center, to work with Dr. Lew Blakey, Chief of the Civil Works Policy Office, on the Corps' position in response to Houck's concern.⁴⁴

Imhoff's reply dealt mainly with the question of "when, if ever, should the Corps' view of national interest override a clearly articulated local interest (whether or not that interest is environmentally oriented)." While elaborating on the complexities inherent in such a question, Imhoff could not find the exact answer. Blakey did not add much more,⁴⁵ although he agreed with Houck that the Corps had an obligation to turn an applicant away from an inappropriate site. Laurence Jahn, Vice President of the Wildlife Management Institute, Washington, D.C., a recently appointed EAB member, also agreed with Houck that national values often were not fully considered at the District level.⁴⁶

When the Board met in February 1980, in the Kingman Building at Fort Belvoir, Virginia, national scoping was the first issue discussed. The Board agreed that Houck should write a memorandum to General Morris expressing the EAB's concern on the subject. This Houck did at the conclusion of the meeting. A major problem, Houck suggested in his letter, emphasizing what he had already stated orally, was that the Corps planned at the District level, while project impacts often extended far beyond District or even Division boundaries. The Corps' work on the upper Mississippi River, for instance, significantly affected "human life patterns" in the lower Mississippi states. The Engineers often did not consider alternative methods for flood control, power supply, or navigation services because the alternatives were "outside the scope of study." For example, improved railroad service might be preferable to enlarged navigation canals such as the Tennessee-Tombigbee Waterway. Similarly, the Corps should consider energy conservation as an alternative to large projects like the Dickey-Lincoln Dam in Maine. There were also problems with permits. By delaying a decision on whether to issue a 404 permit to allow dredge disposal operations, the Corps was often faced with a *fait accompli*. The site had been bought, the state had approved the project, and engineers had completed the plans. Consequently, Houck asserted, the Corps was under tremendous pressure to approve the permit.

Houck recommended various solutions. The District had to become involved earlier in projects of potential impact beyond District lines. The issue should then be studied at the appropriate level, at least by the Division, if not at OCE. Proper coordination among all federal and state agencies had to be initiated as early as practical. Moreover, the Corps "should require early application for any activity which will require a Corps permit." In general, the Corps must "provide the most objective, expert analysis possible," free of

artificial restraints imposed by arbitrary boundaries or administrative guidelines. Finally, the Engineers should consider "national authorizing legislation" under NEPA in order to consider the impact of projects collectively and in conjunction with ongoing projects and authorities.⁴⁷

In the middle of April, General Morris sent a letter to his Division Engineers in which he responded to the concerns raised in Houck's memorandum. He cautioned the Division Engineers to be alert to possible effects of projects within their regions which might affect areas in other parts of the country. OCE would continue to "broaden the scope of draft study authorities when given the opportunity to do so," but Districts and Divisions must also consider the adequacy of each study authorization. Morris rejected mandatory consultations before applications were made in the regulatory program, but he emphasized voluntary discussion, especially for large and complex projects. People should be encouraged to make informal inquiries at the District offices before submitting their permit applications. In conclusion, Morris wrote:

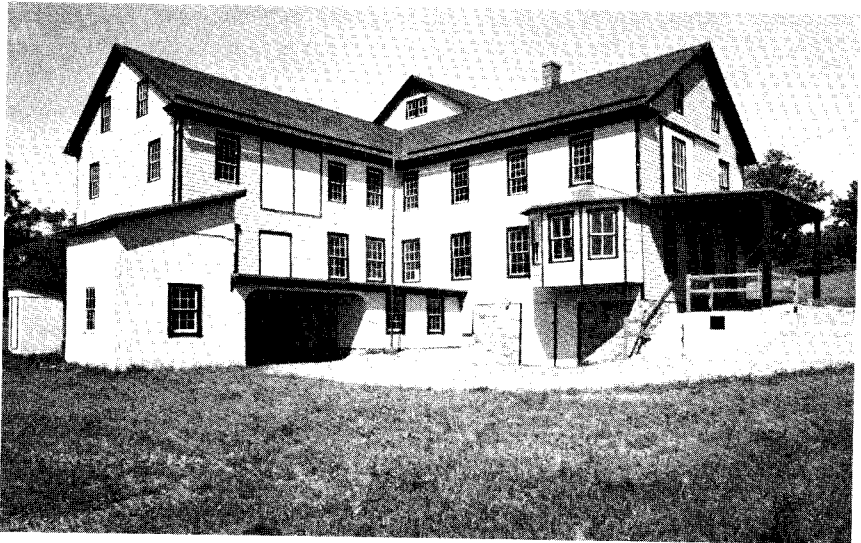
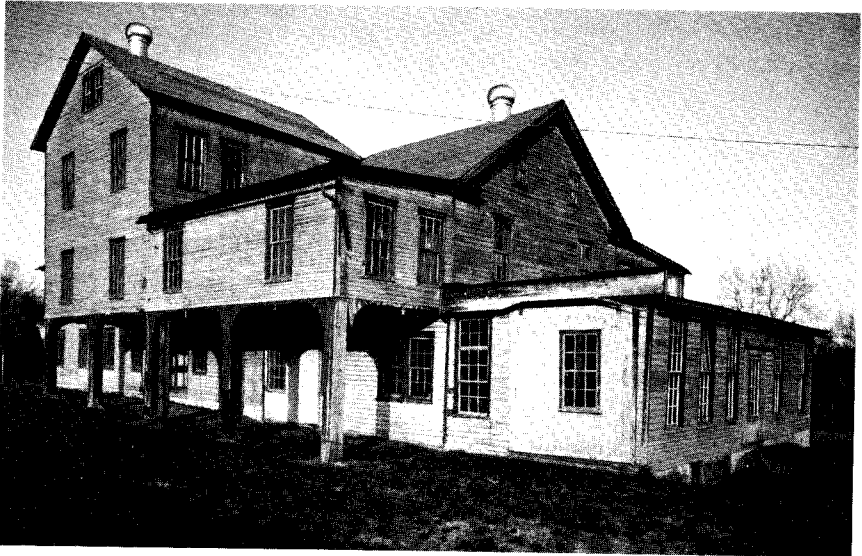
In all these matters we are dealing with questions of judgment and balance. I am committed to our present system of highly decentralized initiative and execution under broad general guidance. The problem of "national scope" issues raised by the EAB will challenge our determination to make this philosophy work.⁴⁸

Consequently, General Morris left much to the discretion of his subordinates, as he attempted to reconcile the Corps' decentralized organization with an issue that transcended administrative boundary lines. The development and application of national guidelines, as well as the appropriate time to use them, would remain controversial issues without easy answers.

In December 1975 and May 1977, mitigation had been the principal subject of the EAB meetings. The Board once again returned to this theme at its February 1980 session, which was attended by representatives for the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the Environmental Protection Agency. Earlier, Brigadier General Richard M. Wells, North Pacific Division Engineer, had sent to Heiberg a very provocative letter on mitigation, which illuminated some of the problems facing the Corps; copies were sent to Corps personnel and distributed to EAB members. Wells believed that Corps activities, policies, and procedures were adequate to insure the initial development of mitigation lands; but operation and maintenance responsibilities needed to be reconsidered. The Corps' predilection to depend on funds from other federal agencies for operation and maintenance activities usually led to disappointment, for other agencies simply did not have enough money.⁴⁹

Another mitigation issue was retrofitting, that is, providing additional mitigation for projects already completed when studies revealed new dangers to the habitat. The Civil Works Policy Office felt that retrofitting was not desirable except when specifically authorized by Congress or the courts. An

exception would be made, however, in cases involving resources vitally important to the nation.⁵⁰



The Gruber Wagon Works, Berks County, Pennsylvania—an exercise in historic preservation. Listed on the National Register of Historic Places, Gruber built wagons for farm and industry from 1882 through the 1950s. In 1974, Philadelphia District purchased the three-story structure which was located on its Blue Marsh Lake Project. During the winter of 1976-77, the works was moved section by section to a new location five miles away. These pictures show the works at its new location before and after its final restoration.

The EAB, nevertheless, urged the Corps to reexamine projects presently under construction to insure the adequacy of mitigation and to review "on a discretionary basis" those constructed before 1958 to evaluate mitigation potential. In response, the Engineers noted the legal and policy implications of reexamination but agreed to study the idea further.⁵¹

One feature of the Corps' mitigation activities elicited strong reservations from the Environmental Advisory Board. This was the "man-day use" method by which the Corps measured the value of wildlife habitat lost to a project. The method involved assigning annual monetary and nonmonetary values to the project area and then calculating how much mitigation was necessary. The procedure emphasized the user's access and facilities rather than the resources to be lost or displaced. The EAB felt this system was of limited value. Members recommended that alternative approaches be tested and evaluated, including a new system called Habitat Evaluation Procedures (HEP), which focused on the habitat itself as the justifying factor.⁵²

In addition to fish and wildlife, significant historic and prehistoric artifacts, sites, and structures—cultural resources—required protection. Public Law 93-291 (Moss-Bennett Act), passed in 1974, authorized federal construction agencies to spend up to one percent of project funds to identify and recover historical and archaeological artifacts. Since that time the Corps had been involved in nearly three hundred cultural resources mitigation efforts.⁵³ Some efforts, such as work on the New Melones Dam project and the Tennessee-Tombigbee Waterway, had proven highly controversial. In April 1980 the EAB met at the United States Military Academy at West Point, New York, to discuss Corps work in this field.

The Board learned about an array of topics dealing with cultural resources management: statutory requirements, the Advisory Council on Historic Preservation (ACHP), the Heritage Conservation and Recreation Service (HCRS), the role of the State Historic Preservation Officer, and the Corps' cultural resources mitigation activities and procedures. Representatives from HCRS and ACHP actively participated in the meeting. Specific topics included the New River and Phoenix City streams in Arizona, New Melones Dam in California, Gruber Wagon Works in Pennsylvania, and the raising of the Confederate ironclad CSS *Georgia* in Savannah Bay.⁵⁴

The Board also reviewed the Military Academy's curriculum on environmental studies. EAB members suggested that some biology or other natural science course be required for all cadets. In the summer, students could participate in one of the Corps' wetlands study courses. The acid rain research done at the Academy impressed the Board. Members also commended the school for its topical environmental courses and encouraged Academy officials to continue the series of lectures by outstanding natural scientists.⁵⁵

The West Point meeting illustrated particularly well some common bureaucratic obstacles to sufficient exchange of information between an agency and an advisory committee. The problem was not quantity—EAB

members over the years had periodically complained of excessive documentation—but quality. Did the Board receive the right information to make intelligent recommendations? At West Point these problems came into focus in a discussion of the Corps' responsibilities for cultural resources management on military installations, detailed in chapter 8 of Army Regulation 200-1. The potential amount of work was enormous. Approximately 4,000 buildings controlled by the Army were more than fifty years old, thereby meeting the most general criterion for listing in the National Register of Historic Places. Of that number, about 2,740 buildings were historically significant and about half of these were listed in the Register. Moreover, there were approximately 500 buildings less than fifty years old but of possible historical significance. The number of probable archaeological sites on the 12½ million acres of Army-controlled land was still unknown, but many installations were located in areas rich in prehistoric remains.⁵⁶

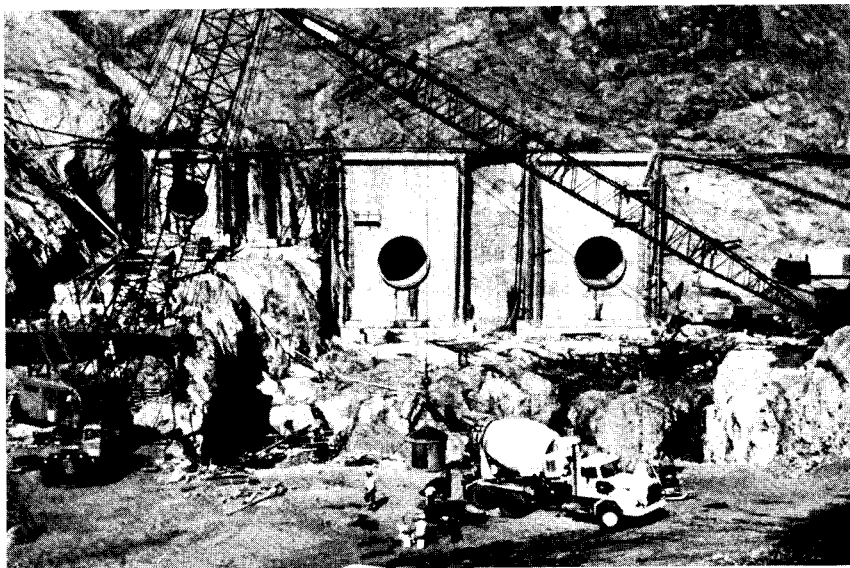
Unfortunately, the scope of cultural resources management activities on military property was poorly communicated to the Board. Constance Ramirez, historic preservation officer in the OCE Military Programs Directorate, was responsible for insuring that missions assigned to the Corps by AR 200-1 were carried out. She was not invited to West Point until two weeks before the Board was to meet and only after she had made inquiries about her office being represented there. Boone had notified the Military Programs Directorate of the upcoming meeting and the topic of discussion, but the information had not reached all the Military Programs branches. Boone had not known about Ramirez's office at all. At the West Point meeting, he managed to "squeeze in" Ramirez to allow her to brief the Board about her activities. However, Ramirez had only a short time to prepare her remarks; Boone told her at breakfast that she would have an opportunity to speak later that same day.⁵⁷

The EAB was never intended to be only a Civil Works Board. Certainly, General Morris never considered it that way. Yet, in a Military Programs activity where the Corps had large responsibilities, a briefing was arranged only at the last minute. A copy of AR 200-1 was not given to McLindon until months later. The EAB Chairman said it was a "real eye-opener" and modified the Board's recommendations to take the regulation into account.⁵⁸ In this matter, the issue was clear: there had been neither enough coordination between Civil Works and Military Programs nor adequate dissemination of information within Military Programs to allow sufficient information to reach the Board on an important Corps environmental function. This limited the ability of Board members to make intelligently informed decisions.

The Board itself expressed concern about receiving adequate information. McLindon wrote Heiberg, "It is most helpful to us in our deliberations to have representatives from OCE, the divisions and districts. Through formal and informal discussions we learn a great deal about the successes and problems of implementing policy at the field level."⁵⁹ The Chairman said much the same thing at the Vicksburg meeting held in August 1980.⁶⁰

An entirely different problem resulted from a briefing by Colonel Paul Kavanaugh, Sacramento District Engineer, on the New Melones cultural resources program, one of the largest undertaken under the provisions of the Moss-Bennett Act. The Corps had taken over the program from the National Park Service, whose work had been lengthy, poorly managed, and inadequate. The Corps' plan, coordinated with state and federal agencies, met the approval of outside review agencies including the General Accounting Office. Unfortunately, after the program was transferred to the Heritage Conservation and Recreation Service in November 1979, it was shut down for lack of funds. The EAB thought the Corps had performed its work "in a very professional manner despite very poor work by other agencies, an uncertain and changing position in the archaeological profession, and agencies and contractors not fully alert to the magnitude of the cultural properties study."⁶¹ Still, if the Corps and the Department of Interior were unable to agree on the Corps' role in Interior's cultural properties management program for New Melones, the Board recommended the appointment of a "special master." The recommendation, explained McLindon, "stated what we believe to be a general policy. . . . when there is a sticky situation and the Corps has fulfilled its responsibilities, then the interests of the Corps may best be served by appointment of a Special Master. This we find offers hope for a solution and is better than the corrosive atmosphere which generally surrounds disputed claims."⁶² McLindon thought Dee Ann Story would be a good choice for special master.⁶³

The problem for the Board was that General Morris was not happy that it had addressed the New Melones case at all. It was a difficult situation,



Construction of the new powerhouse at New Melones Dam, California.

he said, not susceptible to easily identifiable solutions.⁶⁴ As McLindon noted, however, "Because the item was placed before us we had to respond."⁶⁵ This was a case, then, where the Corps presented to the EAB the details of a complex project, which Morris thought was not suitable for Board discussion.

McLindon conveyed the Board's immediate impressions to Morris at the end of the West Point meeting. Members agreed that the Corps' management of cultural resources showed that the Engineers' decentralized structure was working well. They suggested that the Corps establish "centers of excellence" to provide expertise in specific areas of its program. Other recommendations relating to cultural resources management included (1) use of oral history whenever appropriate, (2) development of integrated guidelines in the preauthorization stage, (3) use of a strong program management plan, (4) hiring a GS-14 or GS-15 professional archaeologist for OCE and cultural resources specialists (archaeologists and historians) at District level where needed, (5) development of job descriptions and training programs, (6) development and implementation of an information exchange system, (7) use of a panel of outside peers to review operations and to anticipate and correct problems, (8) development of standardized data reports, (9) provision of Corps civil works expertise to military posts, and (10) development of a curation and conservation policy at the level of the Office of the Secretary of the Army.⁶⁶

In reply, General Morris asked the Board to prepare a policy statement incorporating its recommendations. He also requested recommendations to improve the engineer curriculum at West Point. He thought that a planned Corps of Engineers museum might have a curation facility where historic and prehistoric artifacts could be treated and stored. He also approved civil works cultural resource specialists doing reimbursable work for military programs.⁶⁷

The Board's recommendations received an unusually long and thorough review at OCE. At the August meeting in Vicksburg, however, General Heiberg presented an interim verbal reply. The Corps favored the Cultural Resources Management (CRM) plan suggested by the Board. This would involve a river basin approach to the development and inventory of cultural resources. The problem for Heiberg was to identify the right Division to develop the plan. Heiberg also agreed that CRM personnel should receive additional training. He was more uncertain about the EAB recommendation concerning outside peer review; he thought the use of consultant environmentalists would best meet the Board's intent. He also mentioned his plan to make the Assistant Director of Civil Works for Environmental Programs a Senior Executive Service position after Boone left. The positions of a lieutenant colonel and a junior officer would remain in the office.⁶⁸

The Vicksburg meeting featured discussions of Corps research and development activities. Except for the Engineer Topographical Laboratory, which Dr. James Choromokos, Director of the OCE Research and Develop-



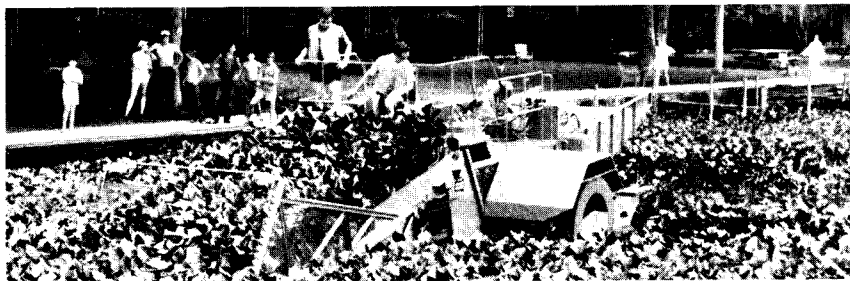
The San Francisco Bay-Delta hydraulics model at the Waterways Experiment Station, Vicksburg, Mississippi.

ment Office, did not think performed activities directly related to environmental matters, all Corps laboratories were represented.⁶⁹ The laboratory directors briefed the Board about the activities under their command. While the briefings were often detailed, they did not always answer the questions of immediate concern to the Board: Were the laboratories responsive to field needs? Were environmental projects given as much consideration as those dealing with construction or engineering? And were the laboratories managed efficiently to eliminate redundancy and make the best use of personnel?

At Vicksburg, Heiberg introduced Dr. Lydia Thomas, Associate Technical Director for Energy, Resources and the Environment of the MITRE Corporation. Thomas came to the meeting as a consultant on research and development, but was expected to be formally appointed to the Board in the near future. Heiberg noted that the Board had representatives from the academic and the environmental communities, but not from the world of professional consultants. Thomas' appointment would remedy this situation.

Several of the recommendations submitted by the Board after their meeting dealt with topics other than research and development. In response to a briefing on the MX missile program, which had been given at McLindon's request,⁷⁰ the Board offered its assistance in developing an environmentally sensitive program for the construction of the missile facilities. It

also offered the services of “the members qualified in the field” to review and comment on Engineer Regulation 1105 2-460, “Identification and Administration of Historic Properties.” Dee Ann Story later flew to Washington to join in a three-day review of this regulation. The Board suggested that interaction with field personnel become a part of every meeting. It also expressed interest in meeting with “our sister group, the Coastal Engineering Board, possibly on barrier islands, beach erosion and similar items of shared interest.”⁷¹ EAB members responded to an interim report on the development of an environmental training program in Huntsville, Alabama. They stressed the importance of informing Corps employees of the opportunities offered by this program and of establishing a program which realistically reflected the needs of potential participants. Members encouraged the Corps to view these needs in the light of a report prepared by the Engineer Studies Center on *Future Work Force Requirements*.⁷²



The aquatic plant control research program at the Waterways Experiment Station. The Harvester cuts a swath some eight feet wide and up to five feet deep and is capable of operating in only eighteen inches of water.

The overall quality of the Corps' research and development program impressed the Board, although members admitted, “We had great difficulty in grasping all facets of the organization.” They suggested a number of significant changes to (1) increase field participation in determining which proposals should become part of the research and development program, (2) develop a comprehensive research plan, (3) eliminate work redundancy among laboratories, (4) insure that the project addresses the questions originally posed, (5) develop five-year research plans and have them reviewed by an outside organization, (6) establish cooperative programs with university research units, and (7) distinguish more clearly between research activities and data acquisition, especially in the Divisions and Districts.⁷³

The Vicksburg meeting was General Morris' last as Chief of Engineers. The Board chose to honor him by presenting him with a certificate which read in part:⁷⁴

Through his commitment to planning and implementing Corps projects in the best interests of the public and in concert with enlightened environmental standards, General Morris has shaped project development policies and inspired environmentally sound

management practices within the Corps.

The ability, energy, and personable spirit of cooperation with which General Morris has approached his responsibilities have been an inspiration to all who have worked with him and have set standards of excellence to be emulated throughout the Corps. As a result of his contributions, the Corps has accepted the challenge and responsibility of facing the future as an advocate and leader in environmental awareness, conservation, and ecologically sound development of the landscape.

The certificate was more than a well-deserved tribute to Morris; it reflected the cooperative atmosphere of mutual respect which had come to characterize relations between the Board and the Corps. A particularly good relationship had developed between Chairman McLindon and Generals Heiberg and Morris. One reason for this rapport was that the Corps showed its commitment to the Board by giving informed responses to EAB recommendations. In effect, a continuous exchange had developed between EAB members and the Corps which involved OCE and field personnel down to the branch level. For its part, the EAB showed a willingness to work toward solving the problems facing the Corps. Morris said of the Board, "We're having good meetings that are addressing tough subjects and coming up with recommendations that are in writing. I just think we're getting a lot of value out of it. I think the Board is more effective now than it has been at any time since the first or second year of its existence."⁷⁵ More succinctly, Heiberg wrote, "this Board may be the best ever."⁷⁶



Members of the Environmental Advisory Board present a plaque to Lieutenant General Morris expressing their appreciation, Vicksburg, Mississippi, 28 August 1980. *From the left:* J. Henry Sather, Laurence R. Jahn, General Morris, Gerald J. McLindon, and Nicholas L. Clesceri.

Chapter VII

CONCLUSION

When the Environmental Advisory Board was first organized in 1970, there was a great sense of anticipation among both its members and supporters. Charles Stoddard hoped that its creation signaled the dawn of a new era.¹ Barney Dodge, Director of the Institute for Water Resources, and his young assistant for environmental affairs, David Aggerholm, dreamed of the EAB assuming a position roughly similar to that of the Board of Engineers for Rivers and Harbors.² Of course, all three men were disappointed. Ten years later, Stoddard bitterly noted, "I don't think that you can make a sorority house out of a whorehouse."³

Some of the obstacles which prevented the Board from meeting the goals of the more radical environmentalists were insurmountable. First of all, statutory restrictions prevented the Board from having too much freedom or even meeting without having a Corps representative present. The Corps' decentralized organization, too, proved frustrating to members; it took a while before they took their charge as advisers to the Chief of Engineers as literally as it was intended. Then again, the Corps, without any clear guidance on how to implement its responsibilities under NEPA, found itself confronting a maze of problems, some of which were foreseeable, some of which were not. Wanting to move vigorously, but with some caution too, the Corps often appeared to several early EAB members as full of good intentions, but lacking sufficient courage to exercise its charge.

Caldwell, Clement, and probably other Board members felt that the Corps' environmental activism directly depended on the interest of Congress. Toward the middle of the 1970s, according to Clement, when a "backlash" was being felt on Capitol Hill, the Corps began to drag its feet. Even Clarke became less aggressive.⁴ EAB members naturally wanted the Corps to be an enthusiastic advocate of environmental planning, without being pulled along by political pressures; but, again in Clement's words, "the Corps' bread is buttered on the other side," meaning the side of Congress. "Jack Morris, for example," Clement explained, "wants to do what is right, but he can't butt Congress."⁵ Caldwell added, "The House Committee on Public Works is the problem."⁶

Today the Corps of Engineers is most definitely an advocate of environmental planning. No one would claim that this change of attitude is the handiwork of the EAB, but none would deny that the Board has made valuable suggestions on how to become better planners. The questions facing the Board today are not so much philosophical as technical, albeit philosophical matters inform engineering and scientific approaches. Board

members are generally solicited for advice in their fields of expertise; their objective appraisal does much to insure that the Corps treats issues with dispassion and balance. In giving its advice the Board is increasingly forced to address policies and regulations of other federal agencies. This is a significant difference between the present Board and earlier ones. When the EAB was first formed, some Corps personnel had the fanciful notion that the Engineers were destined to become *the* leaders in the environmental field. This delusion did not last long. New legislation, executive orders, and regulations have forced—with positive results—federal water resource agencies to work closely together. No one agency can consider itself the white knight of the environmental movement, although by statute the Environmental Protection Agency has final responsibility in many areas. Whatever the case, Corps policies cannot simply be constructed in a vacuum; and EAB members, recognizing this fact, more frequently listen to representatives from other federal agencies as well as from the Corps. In the future more of this contact will undoubtedly be necessary.

While the EAB has helped the Corps in its planning, it has never been able to do long-range planning of its own. Issues have usually been too pressing. Chiefs of Engineers, faced with important legal suits, precedent-making policy decisions, or congressional deadlines usually have wanted Board members to address items of immediate concern. Clearly, the Board needs time to view environmental issues broadly, without having to respond to specific problems. Nevertheless, the Board works more effectively today than it did in the past, mainly because it has better working procedures and because its perceptions of the Corps are more realistic. Members recognize the bureaucratic and statutory restraints on the Corps. They also realize that a federal advisory board works under strict limitations on its authority, something over which the Army has no control. Indeed, although a comparison between the EAB and other federal advisory boards is beyond the scope of this history, the EAB has probably had more freedom and made greater contributions than many.

Today the Board has become more and more technically oriented. Members do not represent any one organization or persuasion; they simply want to clean up the environment, and they recognize that engineering, properly applied, can be the environment's restorer as well as despoiler. For its part, the Corps makes an ongoing, conscious effort to be sensitive to environmental concerns—successfully too, according to McLindon.⁷ Even Houck, who has had some acerbic conflicts with the Corps over the years, admits that the Engineers are "light years ahead" of where they were only a decade ago.⁸

General Morris wanted results from the Board, and he got them. The EAB went through ten years of growth, conflict, and introspection, often making insightful suggestions, but rarely fulfilling the promise of its birth. Today, however, the EAB shows the mature judgment and technical expertise which had always been expected but, unfortunately, only periodically



A nonstructural answer to flood control problems, Indian Bend Wash, Scottsdale, Arizona.

delivered. Some of the early challenges facing Board members, such as the proper preparation of environmental impact statements, have been resolved. Other problems, such as mitigation and land use planning, remain. However, with the Board and the Corps working in close harmony, there is little doubt the EAB will continue to influence environmental policy to the benefit of the Corps and the nation.

Appendix A

MEMBERS OF THE ENVIRONMENTAL ADVISORY BOARD, 1970-1980

The beginning dates of appointment for EAB members have been a matter of some confusion. Three dates have commonly been used: when the appointment was approved, when the contract was issued, and the date of the first Board meeting a member attended after the contract had been issued. Some of the problems resulted from new committee management procedures imposed by Congress and the White House on the executive agencies (see appendix B). To add to the confusion, sometimes none of these dates actually indicated when the member first became involved with the Board.

Terminal dates are equally confusing. Occasionally, a member attended a meeting even after his contract expired. More often, a member resigned early or else simply did not come to the last one or two meetings of his term. Once in a while, contracts were extended, usually for a year.

Since dates of active service most accurately reflect a member's contribution to the EAB, they have been used in preference to contract dates or the dates of approval.

Richard H. Backus
May 1972–November 1976

Charles H. W. Foster
April 1970–April 1972

Stanley A. Cain
March 1977–June 1979

Harold Gilliam
April 1970–April 1976

Lynton K. Caldwell
April 1970–November 1973

Oliver A. Houck
October 1978– March 1981

Roland Clement
April 1970–December 1974

Laurence R. Jahn
December 1979–present

Nicholas L. Clesceri
October 1978– November 1982

Dorn Charles McGrath, Jr.
November 1973–March 1978

Clarence Cottam
November 1973–March 1974
(deceased)

Gerald J. McLindon
March 1977–present

Brock Evans
May 1974–March 1978

Richard H. Pough
April 1970–October 1973

J. Henry Sather
October 1978–November 1982

Dee Ann Story
October 1978–November 1982

Lois Sharpe
May 1972–November 1976

Durbin C. Tabb
May 1974–March 1978

Charles H. Stoddard
April 1970–April 1972 -

Lydia W. Thomas
October 1980–present

Appendix B

THE DEPARTMENT OF DEFENSE AND COMMITTEE MANAGEMENT: THE CASE OF THE ENVIRONMENTAL ADVISORY BOARD

Much of the controversy which surrounded the creation of the EAB was predictable. Environmentalists approached the Board with skepticism, while water resource developers feared the spread of a no-growth philosophy within the Corps. However, a lesser-known source of controversy laid in the manner in which the Board itself was created. Problems in coordinating the Corps' plans for the Board began at the EAB's conception and continued periodically thereafter. An overview of these problems forms a peripheral, but revealing, part of the history of the EAB.

Complications arose initially because the Civil Works Directorate (Colonel Werner) and R. V. Prangley, the Executive Administrative Assistant to the Chief of Engineers, did the paperwork on the EAB without informing others within OCE. The major omission was the Engineer Comptroller, Colonel B. B. Geery. The comptroller's office heard about the Board only after it was informed by the Department of the Army (DA) Committee Management Office in the Pentagon.¹ Once Colonel Geery heard about it, he recommended that the Board be established in accordance with Army Regulation (AR) 15-1, "Boards, Commissions, and Committees: Committee Management." This recommendation was contrary to that of Civil Works personnel, who thought the Board was exempt from the requirements of AR 15-1; but once Geery had read the minutes of the first EAB meeting, he became convinced that the AR requirements applied. The Corps, urged the comptroller, should obtain "at least tacit DA approval of the Board."²

After further consideration, OCE proceeded to establish the Board by issuing, on 14 October 1970, Office Memorandum (OM) 15-2-1, "Boards, Commissions and Committees, Chief of Engineers Environmental Advisory Board." Also, a letter was prepared to be sent through the Secretary of the Army's office to the Secretary of Defense. Apparently, however, Robert E. Jordan III, Special Assistant to the Secretary of the Army (Civil Functions), chose not to send the letter to the Secretary of Defense's office.³ Neither the Secretary of the Army nor the Secretary of Defense formally approved the Board at this time.

In early 1971, changes in Army regulations required the rechartering of the Board on a two-year cycle and the submission of an annual report. The changes required a reevaluation by the Department of the Army of the various Army advisory boards. In the case of the EAB, the analysis turned up some

embarrassing facts. For one thing, it was discovered that no one in the Pentagon had ever formally approved any of the EAB members.⁴ Then in May it was brought to the attention of the Secretary of Defense's office that Senator Charles H. Percy, of Illinois, had made a proposal on the Senate floor the previous August dealing with an environmental advisory board. Percy had called for such a board to be established by statute and selected by the Secretary of the Army. This board would be empowered to submit recommendations on Corps projects before construction had begun. If the Secretary of the Army chose to act contrary to the recommendations, the matter would be forwarded to the Secretary of Defense, who, after reviewing all relevant arguments, would make a final decision. This board, in addition, would have the right to be represented at all Corps hearings and to hold hearings of its own.⁵ Although the Senate bill (No. 4307) which incorporated Percy's views was not passed, the fact that such an item could be discussed on the Senate floor while the Secretary of the Army's office was almost completely ignorant of it was a cause of real consternation. Consequently, the Corps was formally requested to have the EAB approved in accordance with AR 15-1.⁶

The Corps worked with the DA Committee Management Office to insure proper compliance with the regulations; and on 17 September 1971 Robert F. Froehlke, the Secretary of the Army, formally approved the Environmental Advisory Board.⁷ Concurrently, a letter was sent to the Secretary of Defense informing him of the establishment of the EAB.⁸ The episode was finally over, but it had cost the Corps some goodwill at the Pentagon. John G. Connell, Jr., Administrative Assistant to the Secretary of the Army, wrote to the Chief of Engineers, "It is essential that the Army avoid any further embarrassment on the Board from a committee management program standpoint." He specifically requested that from then on the Corps adhere to the requirements of AR 15-1.⁹

General Clarke was eager to avoid further problems. Therefore, he carefully followed procedures and requested that Froehlke approve the extension of the EAB beyond the automatic termination date of 30 June 1972. At the same time, he submitted the names of three nominees to the Board for formal approval: Sharpe, Backus, and McGrath. Clarke indicated that, once all three nominees were approved by the Secretary of the Army, he would pick two for Board membership.¹⁰ Eventually all three were selected. On 24 April 1972 the Secretary of the Army approved both the extension and the nominees.¹¹ Shortly thereafter Backus and Sharpe were appointed to the EAB. Henceforth, the Corps would conscientiously seek the approval of the Secretary of the Army before selecting Board members.

Another committee management problem soon faced the Corps. On 5 June 1972 President Nixon signed Executive Order 11671, which specified open meetings except when boards were discussing items covered by Section 552(b) of Title 5 of the United States Code. Briefly, this section stipulated that internal agency documents could be withheld from the public in cases where

such communications would not routinely be made available to parties in litigation against the agency. The executive order, with various modifications, became Public Law 92-463, signed by Nixon on 6 October 1972.¹²

Clarke decided that Section 552(b) applied to both the EAB and the Corps' Winter Navigation Board. Therefore, he announced that meetings of these two boards would be closed to the public and their records would be exempt from disclosure.¹³ He told EAB members at the October 1972 meeting in Williamsburg, Virginia, that, if they felt that a particular session should be opened to the public, he would consider it.¹⁴ Evidently Board members had no argument with Clarke, for both the Williamsburg and New Orleans meetings were completely closed.¹⁵ Still, questions did come from Congressman William S. Moorhead, Chairman of the Foreign Operations and Government Information Subcommittee of the House Committee on Government Operations. Specifically he wondered about the closing of the New Orleans meeting. The Secretary of the Army's office stood firmly behind Clarke in this matter, however, and rejected any suggestion that Clarke's decision was improper.¹⁶

Nevertheless, General Gribble decided to close only some parts of the EAB meetings. It was clear to the new Chief that the burden of justifying closed meetings would fall on his shoulders. Not only statutory law and executive orders indicated as much, but so did OMB Circular A-63, "Committee Management," issued in early 1973, which interpreted the law in a way favorable to the public.¹⁷

Still, the Corps had not gone far enough to satisfy some congressmen. Congressman David R. Obey was especially upset that the Corps had closed EAB sessions, and he thought it important enough to express his view in the *Congressional Record*. He also complained that the Corps did not give "timely notice" of Board meetings as required by law.¹⁸ In fact the Corps had published notice of the February 1974 meeting belatedly in the *Federal Register*: according to Colonel Wall, this delay was caused by poor postal service.¹⁹

Obey's message was undoubtedly viewed as an unfair attack by the Corps. Only a few weeks before the congressman's remarks, OCE and the Department of the Army had reached an agreement on what sessions should or should not be closed, and General Gribble was sure he was acting in accordance with all existing laws and regulations.²⁰ In August, therefore, he announced that certain parts of the upcoming Board meeting would be closed. Obey saw the notice in the *Federal Register* and once again criticized the Corps' decision. At this point OCE gave up. A new notice was put in the *Federal Register* which stated that due to "an administrative error" the next EAB meeting had been listed as being closed, when in fact it was to be an open meeting.²¹ The Corps never again attempted to close EAB meetings.

The reasons are opaque, but the regulations on committee management rarely work as well in practice as on paper. Approval of candidates by the Secretary of the Army's office was delayed for months. In October 1973, for instance, General Gribble advanced the names of five candidates for the

Board: McGrath, Tabb, Evans, Cottam, and Frank Morrison, a former Nebraska governor. Months passed, but the only word from the Pentagon was that the Office of the Secretary of the Army (OSA) wished to consider just four names. Therefore, Morrison's name was switched to a list of alternates. Meanwhile, Clarence Cottam, who had been attending Board meetings, died in March 1974. Technically then he was never a Board member. In May OCE pressed the Department of the Army for a response. At this time Gribble came forward with a definite recommendation that McGrath and Tabb be approved as the principal candidates. Along with Morrison, Evans was recommended as an alternate.²²

Finally, on 30 July 1974, Secretary of the Army Howard H. Callaway approved Gribble's choices, but not exactly in the way they were presented. McGrath and Evans were confirmed as EAB members, while Tabb was named as the first alternate. Former astronaut Walter M. Schirra, Jr., and Donald Zinn, a former Executive Director of the National Wildlife Federation, were added to the list as the second and third alternates, respectively. It is not clear who suggested Zinn and Schirra as candidates, but available file material indicates that the two men were not recommended by OCE. The fact that Wall thought it important enough to mention Zinn's party affiliation (Republican) on a note to Morris also offers circumstantial evidence of high-level interest.²³ Neither Schirra nor Zinn were appointed in the end, however. Tabb's contract was approved in the fall of 1974.²⁴

Perhaps the biggest scare the Corps had over the continuation of the Environmental Advisory Board came in February 1977, when President Jimmy Carter ordered "a government-wide, zero-base review of all advisory committees." Carter wanted to keep only those committees "for which there is a compelling need," which had a "truly balanced membership," and "which conduct their business as openly as possible consistent with the law and their mandate."²⁵ Even before Carter's directive, Deputy Secretary of Defense Charles W. Duncan, Jr., requested a review of Department of Defense advisory committees. Clifford Alexander, the Secretary of the Army, appeared determined to consolidate some Army advisory committees and to terminate others.²⁶

The Department of the Army Committee Management officer directed a review of all four Corps advisory committees: the EAB, the Shoreline Erosion Advisory Panel (SEAP), the Winter Navigation Board, and the U.S. Army Coastal Engineering Research Board (CERB). The Corps was specifically requested to consider the consolidation of the EAB and CERB or CERB and SEAP.²⁷

Not surprisingly, the Corps defended the retention of all four committees. The EAB, it was emphasized, "compliments, rather than duplicates, functions served by other agencies, private organizations, and the Corps staff." Also it was pointed out that the cost of the Board averaged less than \$15,000 annually, "a miniscule fraction of the \$2.58 billion Civil Works budget for 1978." Though noting that the Board's advice was particularly

useful in the years following the passage of NEPA, the Corps also anticipated that the EAB's work would probably be even more useful in the future, "in light of the President's demonstrated concern for the environmental impacts of water resources projects."²⁸

In response to the President's directive, the Office of Management and Budget (OMB) reviewed all federal advisory committees. Among those which it proposed to terminate was the EAB: "The Board's original objective was to help sensitize the Corps to environmental issues. . . . The Board has now accomplished its objective, and is no longer necessary."²⁹ The Army vigorously rejected OMB's position. "The problem of environmental preservation and protection will never be completed," went the official rejoinder, ". . . we consider the committee's efforts to be of continuing value to the Corps of Engineers."³⁰ In this case the Army won, and on 5 October 1977 the Chief of Engineers was notified that all four Corps advisory committees would be allowed to continue.³¹

Two new committee management problems faced OCE in 1978-1979. First of all, the Department of the Army directed the Corps to use "personal services" rather than "nonpersonal services" contracts with its EAB members. The Corps' position was that a personal services contract was used only where an employer-employee relationship existed or where the employer supervised the contractor's activities. A nonpersonal services contract was used where there was no employer-employee relationship and where the consultants had completely independent judgment, as was true of EAB members. Nevertheless, this interpretation did not accurately reflect Department of Defense policy, which required personal services contracts. The difference was tangibly felt by EAB members. Under the former system, a rate of compensation of \$182 per day was allowed. However, personal services contracts allowed reimbursement only at a rate on the General Schedule which approximated the member's nongovernment salary. For EAB members this figure varied between approximately \$110 and \$150 per day.³²

The second problem arose in late 1979 when Laurence Jahn was named to the Board and McLindon's contract, which had lapsed the previous March, was belatedly extended.³³ At this time the Department of the Army began to press General Morris to appoint a minority member to the Board. Indeed, both appointments were approved "with the condition that the Army actively seek a minority nominee to the EAB. Without such a provision OSD concurrence would have been doubtful." General Morris was advised, "In order to insure OSD concurrence of your next nominee, it is strongly recommended that the nominee be a minority."³⁴ This goal was accomplished with the appointment of Lydia Thomas to the board in the autumn of 1980.

Chapter Notes

Chapter I

1. William O. Douglas, "The Public Be Dammed," *Playboy* 16 (July 1969): 186.
2. Clarke to Dr. Charles H.W. Foster, 2 April 1970, February 1974 EAB binder, Office of Assistant Director, Environmental Programs, Civil Works Directorate (hereafter cited as CWZ-P), Office of Chief of Engineers (OCE). Identical letters were sent to others invited to be Board members.
3. Ibid.
4. Stahr to Clarke, 20 April 1970, Clement file, CWZ-P, OCE.
5. Clarke to Stahr, 13 May 1970, Clement file, CWZ-P, OCE.
6. *Engineer Memoirs: Interviews with Lieutenant General Frederick J. Clarke*, Engineer Pamphlet 870-1-5, November 1979, p. 208.
7. Roland C. Clement, "Redirection for the Corps: The Advisory Board Chairman's Perspective," *Water Spectrum* 4, 3 (Fall 1972): 3.
8. National Environmental Policy Act of 1969, Public Law 91-190, Section 2.
9. Memorandum for Record (MFR), 11 September 1970, subj: Corps of Engineers Actions Related to the Environmental Policy Act of 1969, civil works files, Historical Division, OCE.
10. Ibid.
11. U.S., Congress, Senate, Public Works Committee, *Civil Works Program of the Corps of Engineers*, 89th Cong., 2d sess., 1966.
12. Ibid., p. 5.
13. OCE Public Affairs Office, news release, statement by Lieutenant General Frederick J. Clarke, 2 April 1970, 1st EAB meeting binder, CWZ-P, OCE. For more on the Corps' work to protect anadromous fish, see Frank N. Schubert, "From the Potomac to the Columbia: The Corps of Engineers and Anadromous Fisheries," unpublished manuscript, Historical Division, OCE.
14. Ibid. About one-third of these cases came from Huntington District, where a combination of energetic administration by the District office and a large number of problems caused by coal-mining operations and inadequate municipal dump facilities insured many cases. See the letter of John R. Hill, Jr., to Martin Reuss, 15 October 1980, Historical Division files, OCE. Hill was the acting District Engineer in Huntington in 1971 and later came to OCE as Assistant Director of Civil Works for Environmental Programs. Curtis Clark, Chief of the Regulatory Functions Branch, OCE, also provided information to Reuss on 31 October 1980.
15. Brigadier General Francis P. Koisch, Director of Civil Works, to Director, U.S. Army Engineer Institute for Water Resources, 29 April 1969, subj: Letter of Instructions (copy), civil works file, Historical Division, OCE.

16. Dennis S. Lavery, "The Corps of Engineers and Environmental Regulation," unpublished manuscript, Historical Division, OCE, p. 12; Lance D. Wood and John R. Hill, Jr., "Wetlands Protection: The Regulatory Role of the U.S. Army Corps of Engineers," *Coastal Zone Management Journal* 4, 4 (1978): 378-80.

17. See Douglas, "The Public Be Dammed"; Elizabeth Drew, "Dam Outrage: The Story of the Army Engineers," *The Atlantic Monthly* (April 1970); George Laycock, *The Diligent Destroyers* (New York: Doubleday and Co., Inc.; 1970).

18. *Engineer Memoirs*, EP 870-1-5, p. 207.

19. *Ibid.*

Chapter II

1. *Ibid.*, pp. 208-9.

2. MFR, 5 June 1970, subj: Summary of Environmental Advisory Board Meeting, 25 May 1970 CWZ-P, OCE.

3. *Ibid.* Point 5 was dropped and the other points slightly modified when they were printed in *Water Spectrum*. See Lieutenant General Frederick J. Clarke, "Redirection for the Corps: The Recipient's Perspective," *Water Spectrum* 4, 3 (Fall 1972): 2.

4. Summary of Environmental Advisory Board Meeting, 25 May 1970.

5. *Ibid.*

6. Clarke to all Division Engineers, except Mediterranean, and all District Engineers, except Gulf, Far East, Okinawa, and Canaveral, 2 June 1970, subj: Environmental Policy (copy), environmental policy file, CWZ-P, OCE.

7. *Ibid.*

8. U.S., Congress, House, Committee on Government Operations, *Our Water and Wetlands: How the Corps of Engineers Can Help Prevent Their Destruction and Pollution*, 21st Rept., 91st Cong., 2d sess., 18 March 1970. Congressman Reuss is no relation to the author of this history.

9. U.S., Congress, House, Statement of Brigadier General Richard H. Groves, *Water Pollution Control Legislation—1971 (Oversight of Existing Program)*, *Hearings before the Committee on Public Works*, 92d Cong., 1st sess., 3 June 1971, p. 263.

10. House Committee on Government Operations, *Our Waters and Wetlands*.

11. Reuss to Clarke, 28 July 1970, as printed in U.S., Congress, House, *Mercury Pollution and Enforcement of the Refuse Act of 1899 (Part I)*, *Hearings before a subcommittee of the House Committee on Government Operations*, 92d Cong., 2d sess., 1 July 1971, pp. 460-62.

12. Clarke to the Honorable Russell E. Train, Chairman, Council on Environmental Quality, 25 August 1970 (copy), environmental policy file, CWZ-P, OCE.

13. MFR, 22 October 1970, subj: Summary of Environmental Advisory Board Meeting, 9–10 September 1970, Baltimore District Office, CWZ-P, OCE.

14. Ibid.

15. Ibid.

16. Ibid.

17. Ibid.; MFR, 14 September 1970, subj: Environmental Advisory Board, EAB binder No. 2, CWZ-P, OCE.

18. MFR, 22 October 1970, subj: Summary of Environmental Advisory Board Meeting 9–10 September 1970, Baltimore District Office, CWZ-P, OCE. According to Caldwell, Koisch once said of the EAB, "Your job is to make us look good." Interview with Caldwell, 13 May 1980. In that same interview, Caldwell mentioned that no one on the Board was in favor of the Tennessee-Tombigbee project. He thought it was "sheer politics."

19. OCE Public Affairs Office, news release, 10 December 1970, environmental guidelines file, CWZ-P, OCE.

20. *Environmental Guidelines for the Civil Works Program of the Corps of Engineers*, ER 1165–2–500, appendix A, 30 November 1970, p. 4.

21. Ibid., pp. 5–6.

22. See also Daniel A. Mazmanian and Jeanne Nienhaber, *Can Organizations Change? Environmental Protection, Citizen Participation and the Corps of Engineers* (Washington, D.C.: Brookings Institution, 1979), pp. 26–27.

23. Stoddard to Clarke, 20 October 1970, subj: Planning Process Environmental Considerations, 3d EAB meeting binder, CWZ-P, OCE.

24. Ibid.; MFR, 28 January 1971, subj: Summary of Environmental Advisory Board Meeting, 3–4 December 1970, San Francisco, CWZ-P, OCE.

25. Summary of Environmental Advisory Board Meeting, 3–4 December 1970, San Francisco.

26. For Gilliam's cover letter with attached comments on the *Environmental Guidelines*, see Gilliam to Clarke, 29 September 1970, Gilliam file, CWZ-P, OCE.

27. Summary of Environmental Advisory Board Meeting, 3–4 December 1970, San Francisco.

28. Ibid.

29. Ibid.

30. Stoddard to Clarke, 5 January 1971, subj: Evaluation of Controversial Project Proposals, 4th EAB meeting binder, CWZ-P, OCE. The same day Stoddard wrote this letter, he sent another letter to the Chief of Engineers on the subject of the "Implementation of Revised Regulations for Discharges or Deposit Permits." In this letter, Stoddard pleaded for providing more information to the public and for shifting the burden of proof for justifying the permit to the applicant. This letter is in the same binder noted above.

31. Stoddard to Clarke, 5 January 1971, subj: Evaluation of Controversial Project Proposals.

32. ENGCW-C/PV/OC, discussion paper, 16 February 1971, subj: Procedure for Considering Controversial Project Environmental Aspects, 4th EAB meeting binder, CWZ-P, OCE.

33. Ibid.

34. MFR, 3 May 1971, subj: Summary of Environmental Advisory Board Meeting, 3-4 March 1971, Vicksburg, Mississippi, CWZ-P, OCE.

35. Harold Gilliam, "Challenging the Corps of Engineers," *San Francisco Sunday Examiner and Chronicle*, 14 November 1971, Gilliam file, CWZ-P; OCE.

36. MFR by Colonel Werner, 1 March 1971, subj: Telephone Conversation with Roland Clement, 4th EAB meeting binder, CWZ-P, OCE.

37. Summary of Environmental Advisory Board Meeting, 3-4 March 1971, Vicksburg, Mississippi.

Chapter III

1. Clement to Clarke, 9 March 1971, Clement file, CWZ-P, OCE.

2. Clarke to Clement, 18 March 1971 (copy), Clement file, CWZ-P, OCE.

3. Colonel Richard L. Hunt, "Our Public Relations Crisis," speech before the Contract Construction Course, Fort Belvoir, Virginia, 5 March 1971, Clement file, CWZ-P, OCE.

4. Clement to Hunt, 30 March 1971, Clement file, CWZ-P, OCE.

5. Hunt to Clement, 3 May 1971 (copy), Clement file, CWZ-P, OCE.

6. Ibid.

7. *DeQueen Daily Citizen*, 29 March 1971, p. 2. Copy of clipping in Clement file, CWZ-P, OCE.

8. Clement to Clarke, 6 May 1971, Clement file, CWZ-P, OCE.

9. *The Florida Times-Union*, 29 April 1971. Copy of clipping in Clement file, CWZ-P, OCE.

10. Clement to Clarke, 6 May 1971, Clement file, CWZ-P, OCE.

11. Clarke to Clement, 10 June 1971 (copy), Clement file, CWZ-P, OCE.

12. MFR, 3 September 1971, subj: Summary of the Environmental Advisory Board Meeting, Washington, D.C., 10-11 June 1971, CWZ-P, OCE.

13. Ibid.

14. Stoddard to Clarke, 18 June 1971, subj: An Appraisal of the First Year's Work and Future Board Functions (copy), 6th EAB meeting binder, CWZ-P, OCE. Major General Charles I. McGinnis, USA (ret), who was District Engineer at St. Paul from 1969 to 1971, called Stoddard's assertion that the Corps pressured the Wisconsin governor on the La Farge project "absolutely wild." McGinnis, who said that he did not know of Stoddard's letter while he was at St. Paul, explained that he and Major General Ernest Graves, the Division Engineer, met with Governor Patrick Lucey, who had been elected with strong support from the environmental community, to discuss La Farge. Lucey decided that he really did not understand the project

well enough, although he had earlier opposed it. Subsequently, a public hearing was held at which both opponents and supporters of the project spoke. A few weeks later, the governor, with some reservations, came out in favor of La Farge. Telephone interview with McGinnis, 4 March 1980.

15. Clarke to Stoddard, 16 July 1971 (copy), 6th EAB meeting binder, CWZ-P, OCE.

16. MFR, 15 November 1971, subj: Summary of the Environmental Advisory Board Meeting, Louisville, Kentucky, 28-29 October 1971, CWZ-P, OCE. Stoddard later disputed Clarke's version. He claimed that the letter appeared in Reston's column about a month after Clarke had received it. He also asserted that he did not leak it to Reston. Telephone interview with Stoddard, 6 May 1980. Nevertheless, sections of the letter were quoted in William M. Blair's article, "Ecologist Scores Army Engineers," which appeared in the *New York Times* on 1 August 1971. I am grateful to Jeffrey K. Stine, author of a forthcoming volume in the Environmental History Series, for bringing this article to my attention.

17. MFR by Werner, 9 July 1971, subj: Chief's Advisory Board—Stoddard, 6th EAB meeting binder, CWZ-P, OCE.

18. MFR by Werner, 3 September 1971, subj: Mr. Stoddard; see also attached letter, Colonel Kelly to Secretary Robert F. Froehlike, 27 August 1971. Both in 6th EAB meeting binder, CWZ-P, OCE.

19. MFR by Werner, 4 October 1971, subj: Followup on Stoddard's Status with Environmental Advisory Board, 6th EAB meeting binder, CWZ-P, OCE.

20. Stoddard to Clarke, 22 October 1971, 6th EAB meeting binder, CWZ-P, OCE.

21. MFR by Werner, 23 November 1971, subj: Clement/Inventories, Clement file, CWZ-P, OCE. For more on Clement's growing exasperation with Stoddard, see MFR by Werner, 26 October 1971, subj: Telephone Call with Mr. Clement Regarding EAB Meeting, same file.

22. MFR, 25 April 1972, subj: Summary of the Environmental Advisory Board Meeting, Washington, D.C., 10-11 February 1972 (draft), CWZ-P, OCE.

23. Ibid.

24. For more on Seattle District's experience with open planning, see Mazmanian and Nienhaber, *Can Organizations Change?*, pp. 132-57.

25. Summary of the Environmental Advisory Board Meeting, Washington, D.C., 10-11 February 1972 (draft).

26. Clement to Dr. C. Grant Ash, Planning Division, OCE, 30 November 1971 (copy), Clement file, CWZ-P, OCE.

27. Clement to Reuss, 30 August 1980, EAB file, Historical Division, OCE.

28. MFR, Clement to Clarke, 14 April 1972, subj: Environmental Inventories (with enclosure, "To Whom It May Concern" letter for general distribution to environmental groups), Clement file, CWZ-P, OCE.

29. Summary of the Environmental Advisory Board Meeting, Washington, D.C., 10–11 February 1972 (draft).

30. Clement to Clarke, 18 February 1972, Clement file, CWZ-P, OCE, emphasis in original.

31. The speech, presented originally at a Division Engineers' Conference (5 May 1972), and project and analysis are in the 8th EAB meeting binder, CWZ-P, OCE.

32. MFR, 20 August 1972, subj: Minutes of the 8th Meeting of the EAB, Airlie House, Warrenton, Virginia, 24–25 May 1972, CWZ-P, OCE.

33. Clement, "Redirection for the Corps: The Advisory Board Chairman's Perspective," p. 3.

34. Clarke, "Redirection for the Corps: The Recipient's Perspective," p. 2.

Chapter IV

1. Ibid.

2. MFR, 15 December 1972, subj: Minutes of the 9th Meeting of the EAB, Williamsburg, Virginia, 11–12 October 1972, CWZ-P, OCE.

3. Ibid. Mark S. Gurnee, Chief of the OCE Operations Division, had first introduced the Board to the dredging study in the February meeting. See the Summary of the Environmental Advisory Board Meeting, Washington, D.C., 10–11 February 1972 (draft).

4. Barry Kohl, Conservation Director, New Orleans Chapter, National Audubon Society, to Colonel Richard L. Hunt, District Engineer, New Orleans, n.d. (copy), Clement file, CWZ-P, OCE.

5. Oliver A. Houck, Counsel, National Wildlife Federation, to Colonel Hunt, 23 March 1972 (copy), Clement file, CWZ-P, OCE.

6. MFR, 22 March 1973, subj: Environmental Advisory Board Meeting held in New Orleans, 5–6 February 1973, CWZ-P, OCE.

7. MFR, 15 June 1973, subj: Environmental Advisory Board Meeting held in Washington, D.C., 15–16 May 1973, in binder for November 1973 EAB meeting, CWZ-P, OCE.

8. Ibid.

9. Ibid.: MFR, subj: Future Focus of the Board, in binder for 15–16 May 1973 EAB meeting, CWZ-P, OCE.

10. Summary of the Environmental Advisory Board Meeting held in Washington, D.C., 15–16 May 1973.

11. Gilliam to Clarke, 5 January 1973, Gilliam file, CWZ-P, OCE.

12. MFR by Werner, 18 April 1973, subj: Meeting with Harold Gilliam in San Francisco, Gilliam file, CWZ-P, OCE.

13. Gilliam to Morris, 2 July 1973, Gilliam file, CWZ-P, OCE.

14. Gilliam to Lieutenant Colonel John F. Wall, Assistant Director of Civil Works, Environmental Program, 17 September 1974; Wall to Gilliam, 4 October 1974 (copy); Gilliam to Wall, 27 December 1974; Wall to Gilliam, 15 January 1975. All in Gilliam file, CWZ-P, OCE.

15. Disposition Form (DF), Morris to Assistant Directors and Division Chiefs, CWZ-C, and CWZ-X, Civil Works, 17 May 1973, subj: Role of EAB, in binder for 6-7 November 1973 EAB meeting, CWZ-P, OCE.

16. Ibid., see enclosure.

17. DF, Reisler to Morris, 7 June 1973, subj: Environmental Advisory Board, in binder for 6-7 November 1973 EAB meeting, CWZ-P, OCE.

18. DF, Kratz to Wall, 18 June 1973, subj: Environmental Advisory Board, in binder for 6-7 November 1973 EAB meeting, CWZ-P, OCE. Macomber drafted this DF.

19. Ibid.

20. Technically, because of various delays at the Department of Defense level, McGrath was not appointed to the Board until 16 August 1974. At that time Brock Evans, Washington representative for the Sierra Club and the Federation of Western Outdoor Clubs, was also appointed, replacing Lynton Caldwell. OCE Public Affairs Office, news release, 16 August 1974, August 1974 EAB binder, CWZ-P, OCE.

21. Morris to Clement, 13 August 1973, in binder for 6-7 November 1973 EAB meeting, CWZ-P, OCE.

Chapter V

1. DF, Werner to Morris, 4 June 1973, subj: Role of EAB, February 1974 EAB binder, CWZ-P, OCE.

2. Ibid.

3. Transcript of Werner's taped comments, 8 April 1980, Historical Division, OCE; Interview with Brigadier General John F. Wall, Washington, D.C., 25 April 1980.

4. MFR, 15 February 1974, subj: Environmental Advisory Board Meeting, 6-7 November 1973, Washington, D.C., CWZ-P, OCE.

5. Ibid.

6. Ibid.

7. Harold Gilliam, "New Ecology Mood of the Army Engineer," *San Francisco Examiner and Chronicle*, 9 December 1973, clipping in February 1974 EAB binder, CWZ-P, OCE; U.S., Congress, House, Document No. 94-643, 94th Cong., 2d sess., 29 September 1976; *Annual Report of the Chief of Engineers, 1977*, II, 35-15-16.

8. Urban Studies Program, briefing paper, November 1973 EAB binder, CWZ-P, OCE.

9. Pough to Gribble, 14 November 1973, February 1974 EAB binder, CWZ-P, OCE.

10. Ibid.

11. DF, Morris to Gribble, 18 December 1973, subj: Questions for EAB Responses, February 1974 EAB binder, CWZ-P, OCE.

12. DF, Wall to Morris, 31 January 1974, subj: EAB Questions, February 1974 EAB binder, CWZ-P, OCE.

13. Gribble to Clement, 7 February 1974, February 1974 EAB binder, CWZ-P, OCE.

14. MFR, 10 May 1974, subj: Environmental Advisory Board Meeting, 26-27 February 1974, Kingman Building, Ft. Belvoir, Virginia, CWZ-P, OCE.

15. Ibid.

16. Ibid.

17. Ibid.

18. Ibid.

19. Interview with Brigadier General John F. Wall, Washington, D.C., 25 April 1980.

20. MFR, 1 November 1974, subj: Environmental Advisory Board Meeting, 27-29 August 1974, Little Rock and Tulsa Districts, CWZ-P, OCE.

21. Ibid.

22. Ibid.

23. Ibid.

24. Ibid.

25. Ibid.

26. DF, Morris to Civil Works Directorate, 4 December 1974, subj: Division Engineers' Conference Followup, December 1974 EAB binder, CWZ-P, OCE.

27. Wall to Greenwalt, 16 October 1974, December 1974 EAB binder, CWZ-P, OCE.

28. Greenwalt to Wall, 5 November 1974, December 1974 EAB binder, CWZ-P, OCE; MFR, 16 May 1975, subj: EAB meeting 18-19 December 1974 at the Office of the Chief of Engineers, CWZ-P, OCE.

29. MFR, 1 November 1974, subj: Environmental Advisory Board Meeting, 27-29 August 1974, Little Rock and Tulsa Districts, CWZ-P, OCE.

30. As quoted and emphasized in Clement's letter to Gribble, 5 September 1974, December 1974 EAB binder, CWZ-P, OCE.

31. Clement to Gribble, 5 September 1974, December 1974 EAB binder, CWZ-P, OCE.

32. Morris to Clement, 19 September 1974 (copy), December 1974 EAB binder, CWZ-P, OCE.

33. Evans to Morris, 1 October 1974, December 1974 EAB binder, CWZ-P, OCE.

34. Morris to Evans, 22 October 1974 (copy), December 1974 EAB binder, CWZ-P, OCE.

35. MFR, 8 September 1975, subj: Environmental Advisory Board Meeting, 20-21 May 1975, Huntington District, CWZ-P, OCE.

36. Ibid.

37. DF, Hill to Morris, 13 June 1975, subj: Environmental Brochure, EAB files, Historical Division, OCE.

38. Transcript of interview with General Morris, Washington, D.C., 14 July 1980, Historical Division, OCE.

39. Gilliam to Morris, 6 May 1975, and Morris to Gilliam, 9 May 1975 (copy), both in May 1975 EAB binder, CWZ-P, OCE.
40. MFR, 8 September 1975, subj: Environmental Advisory Board Meeting, 20-21 May 1975, Huntington District, CWZ-P, OCE.
41. DF, Hill to Major General Ernest Graves, Director of Civil Works, 23 October 1975, subj: Meeting with Professor McGrath, November 1975 EAB binder, CWZ-P, OCE.
42. Ibid.
43. Tom Barlow, Natural Resources Defense Council, Inc., to Gribble, 22 October 1975, enclosure to MFR, Environmental Advisory Board Meeting, 12-13 November 1975, OCE, Washington, D.C., CWZ-P, OCE.
44. MFR, Environmental Advisory Board Meeting, 12-13 November 1975, OCE, Washington, D.C., CWZ-P, OCE.
45. Morris' note on DF, Graves to Gribble, 7 October 1975, subj: Environmental Advisory Board Meeting, 12-13 November 1975, November 1975 EAB binder, CWZ-P, OCE.
46. Ibid., with enclosures.
47. Environmental Action Program, fact sheet, 1 April 1976, in April 1976 EAB binder for Lieutenant Colonel Hill, CWZ-P, OCE.
48. MFR, 29 October 1976, subj: Environmental Advisory Board Meeting, 13-14 April 1976, Kingman Building, Ft. Belvoir, Virginia, CWZ-P, OCE.
49. Hill to McGrath, 17 March 1976 (copy), April 1976 EAB meeting binder for Lieutenant Colonel Hill, CWZ-P, OCE.

Chapter VI

1. Transcript, EAB meeting, 9 November 1976, Washington, D.C., CWZ-P, OCE, pp. 31-32.
2. Graves to Backus, 14 October 1976 (copy), November 1976 binder for Lieutenant Colonel Hill, CWZ-P, OCE.
3. Lois Sharpe was particularly eager that the EAB have an economist. An undated letter from her to Hill containing this suggestion is in her file in CWZ-P, OCE.
4. Transcript, EAB meeting, 9 November 1976, Washington, D.C., CWZ-P, OCE, pp. 35-56.
5. Ibid., pp. 7-8; Morris to Division Engineers, 8 October 1976, subj: Environmental Guidelines for the Civil Works Program, environmental policy file, Historical Division, OCE; *Federal Register*, 29 October 1976, pp. 47676-78.
6. Transcript, EAB meeting, 24 May 1977, Washington, D.C., CWZ-P, OCE, pp. 117-18.
7. Telephone interview with Stoddard, 4 September 1980.
8. Transcript of interview with General Morris, 14 July 1980, Historical Division, OCE.

9. Transcript, EAB meeting, 24 May 1977, Washington, D.C., pp. 12-13.

10. Ibid., pp. 16-19; MFR, 8 July 1977, subj: Summary of Engineer Environmental Advisory Board Meeting, 24 May 1977, Forrestal Building, Washington, D.C., EAB binder, CWZ-P, OCE; McGrath to Morris, 15 November 1977, 1977 EAB file, CWZ-P, OCE; McLindon to Reuss, 22 December 1980, EAB file, Historical Division, OCE.

11. MFR, n.d., subj: Summary of Chief of Engineers Environmental Advisory Board Meeting, 28-29 March 1978, Airlie House, Warrenton, Virginia; 28 March 1978 EAB meeting file (draft), CWZ-P, OCE.

12. Ibid.

13. McLindon had been Acting Chairman in McGrath's absence at the March 1978 meeting. Morris was impressed and invited him to be permanent Chairman in a reply on 15 May 1978 to McLindon's suggestions for future roles for the Corps. One of McLindon's major suggestions, proposed in his letter of 9 March, was that the Corps conduct research on energy efficient housing; however, Morris responded that diminished military housing needs and limited research funds precluded the Corps' active involvement. McLindon accepted the chairmanship in a note to Morris on 16 June 1978. All letters are in an EAB file, CWR-P (Office of Policy, Civil Works), OCE.

14. DF, McGinnis to Morris, 14 August 1978, subj: Environmental Advisory Board (EAB) Meeting, 30 October-2 November 1978 EAB file, CWZ-P, OCE.

15. EAB agenda, 30 October-2 November 1978 meeting, 30 October-2 November EAB file, CWZ-P, OCE.

16. DF, McGinnis to Morris, 6 November 1978, subj: Quick Report on the EAB Meeting Conclusions, 30 October-2 November EAB file, CWZ-P, OCE.

17. Interview with Boone, Washington, D.C., 19 May 1980.

18. DAEN-RMB, information paper, 10 April 1979, subj: Civil Works Environmental Conference, 26-29 June 1979, EAB files, CWZ-P, OCE.

19. Morris' note on DF, McGinnis to Morris, 19 June 1979, subj: Environmental Advisory Board (EAB) Meetings, EAB files, CWZ-P, OCE. Emphasis in original.

20. Interview with Boone, 19 May 1980.

21. Houck to McLindon, 28 June 1979; DF, Boone to Morris, 24 July 1979, subj: Mr. Oliver Houck's EAB Participation, with undated letter Morris to Houck. All in EAB files, CWZ-P, OCE.

22. Report of the—Meeting of the Environmental Advisory Board, Raddison Hotel, Chicago, 28 June 1979, submitted by McLindon, EAB files, CWZ-P, OCE.

23. MFR, Martin Reuss, 16 July 1979, subj: Trip Report—Civil Works Environmental Conference, 26-29 June 1979, Historical Division files, OCE.

24. Ibid.; Transcript, Conference Summary, Civil Works Environmental Conference, 28 June 1979, EAB files, CWZ-P, OCE, pp. 51-67, 77-99.

25. Report of the—Meeting of the Environmental Advisory Board, Olde Colony Motor Lodge, Alexandria, Virginia, 19–21 September 1979, EAB file, CWZ-P, OCE.

26. Interview with Boone, 16 June 1980; MFR, Major General Heiberg, 2 May 1980, subj: Chief of Engineers Response to the Environmental Advisory Board's Comments on Fish and Wildlife Mitigation (copy), EAB file, CWZ-P, OCE.

27. Report of the—Meeting of the Environmental Advisory Board, 19–21 September 1979.

28. See informal summary of the Huntsville Division Meeting by Lieutenant Steven Lambson in the Huntsville meeting file, CWZ-P, OCE; also, in the same file can be found the "Report to the Chief of Engineers, 30 November 1979," submitted by McLindon. This report contains the Board's specific recommendations on environmental training.

29. Brazier to Division Engineers, 21 May 1980, subj: Public Awareness of the Regulatory Functions Program (copy), environmental file, Historical Division, OCE.

30. Interview with Boone, Washington, D.C., 27 May 1980; interview with Clark, Washington, D.C., 29 May 1980.

31. Major General Heiberg's Response to Environmental Advisory Report (provided verbally, 28 November 1979), n.d., EAB files, CWZ-P, OCE, p. 17.

32. DF, Brazier to Heiberg, 20 December 1979, subj: Environmental Advisory Board (EAB) Meeting, 28–30 November 1979 (copy), environmental file, Historical Division, OCE.

33. *Ibid.*, see Heiberg's note.

34. DF, Brazier to Heiberg, 25 January 1980, subj: Environmental Advisory Board (EAB) Meeting, 28–30 November 1979 (copy), environmental file, Historical Division, OCE.

35. Note, Robertson to Heiberg, n.d. (copy), environmental file, Historical Division, OCE.

36. DF, Ralph Loschialpo (PEZ-A) to Colonel Rayburn L. Williamson (RMZ-A), 12 May 1980, subj: Environmental Advisory Board (EAB) Recommendations Concerning Trainers and Training Committees (copy), environmental file, Historical Division, OCE.

37. Morris to FOAs (field operating activities), 26 February 1980, subj: Environmental Advisory Board (copy), February 1980 reading file, CWZ-P, OCE.

38. Interview with Boone, 27 May 1980.

39. Lambson's note on Huntsville meeting, Huntsville meeting file, CWZ-P, OCE; DF, Heiberg to selected Civil Works personnel, 4 December 1979, subj: Environmental Advisory Board (EAB) Meeting, 28–30 November 1979 (copy), 6–8 February 1980 EAB file, CWZ-P, OCE.

40. Houck to McLindon, 7 December 1979 (copy), 6–8 February 1980 EAB file, CWZ-P, OCE.

41. Ibid., see Blumenfeld's note.
42. Note, Robinson to Heiberg, n.d., 6-8 February 1980 EAB file, CWZ-P, OCE.
43. Ibid., see Heiberg's note.
44. DF, Heiberg to selected Civil Works personnel, 4 December 1979, subj: Environmental Advisory Board (EAB) Meeting, 28-30 November 1979 (copy), 6-8 February 1980 EAB file, CWZ-P, OCE.
45. Imhoff to Heiberg, 22 January 1980, subj: Environmental Advisory Board (EAB) Meeting, 28-30 November 1979, and Blakey to Heiberg, 30 January 1980, subj: Environmental Advisory Board (EAB) Meeting, 28-30 November 1979, both in 6-8 February 1980 EAB file, CWZ-P, OCE.
46. Lambson's notes on February 1980 EAB meeting, 6-8 February 1980 EAB file, CWZ-P, OCE.
47. MFR, Houck to Morris and McLindon, 8 February 1980 (copy), 6-8 February 1980 EAB file, CWZ-P, OCE.
48. Morris to Division Engineers, n.d., subj: Environmental Advisory Board Memorandum on "National Scope," environmental file, Historical Division, OCE.
49. Wells to Heiberg, 2 January 1980, subj: Corps Policies Regarding Wildlife Mitigation and Wildlife Habitat Development on Project Lands (copy), 6-8 February 1980 EAB file, CWZ-P, OCE.
50. Blakey to Boone, 1 February 1980, subj: Mitigation Retrofit Issue (copy), 6-8 February 1980 EAB file, CWZ-P, OCE.
51. MFR, Major General Heiberg, 2 May 1980, subj: Chief of Engineers Response to the Environmental Advisory Board's Comments on Fish and Wildlife Mitigation (copy), EAB file, CWZ-P, OCE.
52. Ibid.; see also the article by Oliver A. Houck, "Promises, Promises: Has Mitigation Failed?," *Water Spectrum* (Spring 1978): 31-36.
53. Note from Dick Leverty, Plan Formulation and Evaluation Branch, Planning Division, OCE, to the author, 24 September 1980, environmental files, Historical Division, OCE.
54. Tape recording, 9-11 April 1980 EAB meeting, CWZ-P, OCE; author's notes of the same meeting, EAB file, Historical Division, OCE.
55. McLindon to Morris, 16 May 1980, McLindon file, CWZ-P, OCE.
56. MFR, Constance Ramirez, n.d., subj: Management for Protection of Army Historic Property: Comments to the Environmental Advisory Board, 10 April 1980, 9-11 April 1980 EAB file, CWZ-P, OCE.
57. Telephone interview with Ramirez, 22 October 1980; MFR (copy), Ramirez to Bill Daily, Chief, Buildings and Grounds Branch, Operations and Maintenance Division, Military Programs Directorate, 3 April 1980, subj: Environmental Advisory Board Meeting at USMA, 9-11 April 1980, EAB files, Historical Division, OCE; interview with Boone, Washington, D.C., 28 October 1980.
58. Telephone conversation with McLindon, early October 1980; Comments on the Chief of Engineers Response to EAB Recommendations on

Cultural Properties, 25 September 1980, Enclosure 3 to the EAB Report to the Chief of Engineers on the 26–28 August 1980 EAB meeting, EAB files, Historical Division, OCE.

59. McLindon to Heiberg, n.d. (middle of May), McLindon file, CWZ-P, OCE.

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64. Lieutenant Steven Lambson's notes of Morris' remarks, 9–11 April 1980 EAB meeting, CWZ-P, OCE.

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69. Choromokos' comments to Reuss, Washington, D.C., 4 September 1980.

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71. EAB Report to the Chief of Engineers on the 26–28 August 1980 EAB meeting, submitted by McLindon, EAB files, Historical Division, OCE.

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75. Transcript of interview with General Morris, Washington, D.C., 14 July 1980, Historical Division, OCE.

76. Heiberg to Brigadier General Norman G. Delbridge, Jr., South Pacific Division Engineer, 25 February 1980, Civil Works reading file, Historical Division, OCE.

Chapter VII

1. Telephone interview with Stoddard, 6 May 1980.

2. Telephone interview with Dodge, 14 May 1980.

3. Telephone interview with Stoddard, 6 May 1980.

4. Telephone interview with Clement, 12 May 1980.

5. Ibid.

6. Interview with Caldwell, Washington, D.C., 13 May 1980.

7. Interview with McLindon, Washington, D.C., 15 February 1980.

8. Telephone interview with Houck, 27 February 1980.

Notes for Appendix B

1. Note, A.E. Simonini to R.E. Hall, Chief of the Program Review and Analysis Branch, OCE, n.d., COE Environmental Advisory Board file, Management and Organizational Division, Resource Management Office (RMI-M), OCE.

2. DF, Geery to Chief of Engineers, 25 June 1970, subj: Establishment of the Environmental Advisory Board, COE Environmental Advisory Board file, RMI-M, OCE.

3. MFR, Colonel Werner, 8 October 1971, subj: Establishment of the Environmental Advisory Board (copy), COE Environmental Advisory Board file, RMI-M, OCE.

4. Note, Barbara Parks, Administrative Services, OASD(A), to J. Green, 7 May 1971, subj: Corps of Engineers Environmental Advisory Board, Committee Management files, Department of the Army (DA).

5. U.S., Congress, Senate, *Congressional Record*, S14680-81, 31 August 1970.

6. MFR, Connell to Chief of Engineers, 24 September 1971, subj: Chief of Engineers Environmental Advisory Board (copy), COE Environmental Advisory Board file, RMI-M, OCE.

7. Froehlke's written approval on MFR from J.J. Harvatt, DA Committee Management Officer, 10 September 1971, subj: Corps of Engineers Environmental Advisory Board, Committee Management files, DA.

8. Robert E. Jordan III, Special Assistant to the Secretary of the Army (Civil Functions), to the Secretary of Defense, n.d., subj: Establishment of the Chief of Engineer Environmental Advisory Board (copy), Committee Management files, DA.

9. MFR, Connell to Chief of Engineers, 24 September 1971, subj: Chief of Engineers Environmental Advisory Board (copy), COE Environmental Advisory Board file, RMI-M, OCE.

10. Clarke's note to OCE Comptroller, 13 April 1972, subj: Chief of Engineers Environmental Advisory Board (copy), Committee Management files, DA.

11. *Ibid.*, see Froehlke's approval.

12. U.S., President, Executive Order 11671, *Combined Federal Register*, 1971-75, sec. 13, 5 June 1972, pp. 710-13; MFR, Lieutenant General Clarke, 3 October 1972, subj: Chief of Engineers Advisory Board and Winter Navigation Board (copy), Committee Management files, DA; Public Law 92-463, sec. 10, 6 October 1972.

13. MFR, General Clarke, 3 October 1972, subj: Chief of Engineers Advisory Board and Winter Navigation Board (copy), Committee Management files, DA.

14. MFR, 15 December 1972, subj: Minutes of the 9th Meeting of the Environmental Advisory Board at Williamsburg, Virginia, 11-12 October 1972, CWZ-P, OCE.

15. Ibid.; MFR, 22 March 1973, subj: Environmental Advisory Board Meeting held in New Orleans, 5-6 February 1973, CWZ-P, OCE.

16. Charles R. Ford, Chief, Office of Civil Functions, Office of the Undersecretary of the Army, to Moorhead, 9 March 1973, COE Environmental Advisory Board file, RMI-M, OCE.

17. See OMB circular printed in 38 *Federal Register* 2306, 23 January 1973.

18. U.S., Congress, House, *Congressional Record*, E871, 25 February 1974.

19. Note appended to photocopy of *Congressional Record*, E871 (above), Wall to Morris, February 1974, subj: Committee Management, August 1974 EAB binder, CWZ-P, OCE.

20. DF, Colonel James Gilland, Engineer Comptroller, to General Gribble, 30 January 1974, subj: Committee Management (copy), August 1974 EAB binder, CWZ-P, OCE.

21. MFR, Gribble, 31 July 1974, subj: Environmental Advisory Board Meeting, 27-28 August 1974; Colonel Marvin R. Rees, Executive Director of Civil Works, to Obey, 13 August 1974 (copy); Note, Wall to Morris, 16 August 1974; MFR, Gribble, 19 August 1974, subj: Environmental Advisory Board Meeting, 27-29 August 1974; Colonel Russell J. Lamp, Executive to Chief of Engineers, to Liaison Officer with *Federal Register*, 19 August 1974, subj: Publication of Revised Notice of Environmental Advisory Board Meeting in *Federal Register* (copy). All documents in August 1974 EAB binder, CWZ-P, OCE.

22. Gribble to Secretary of the Army, 12 October 1973, subj: Membership, Chief of Engineers Environmental Advisory Board; Gribble to Secretary of the Army, 6 May 1974, subj: Membership, Chief of Engineers Environmental Advisory Board; Morris to Chief, Office of Civil Functions, OSA, 9 July 1974, subj: Clearances for Environmental Advisory Board Members (copy). All in COE Environmental Advisory Board file, RMI-M, OCE.

23. Callaway's endorsement, 30 July 1974, of Gribble to Secretary of the Army, 6 May 1974, subj: New EAB members, August 1974 EAB binder, CWZ-P, OCE.

24. Lyle C. McLaren, Jr., Chief, Office of Staff Support, Civil Works, to Tabb, 21 November 1974, Tabb file, CWZ-P, OCE.

25. Carter to Heads of Executive Departments and Agencies, 25 February 1977, subj: Review of Advisory Committees (copy), Review of Advisory Committees Reports file, RMI-M, OCE.

26. John G. Connell, Jr., to Chief of Engineers, 14 March 1977, subj: Review of Army Advisory Committees (copy), Review of Advisory Committees Reports file, RMI-M, OCE.

27. Typed note, n.d., subj: Review of COE Advisory Committees, Review of Advisory Committees Reports file, RMI-M, OCE.

28. Brief, n.d., subj: U.S. Army Corps of Engineers, Chief of Engineers Environmental Advisory Board (copy), Review of Advisory Committees Reports file, RMI-M, OCE.

29. Enclosure to John G. Connell, Jr., to David O. Cooke, Deputy Assistant Secretary of Defense, 15 July 1977, subj: Reduction in the Number of Federal Advisory Committees (copy), Review of Advisory Committees Reports file, RMI-M, OCE.

30. Ibid.

31. J.J. Harvatt to Chief of Engineers, 5 October 1977, subj: Status of the President's Zero Base Review of Advisory Committees, Review of Advisory Committees Reports file, RMI-M, OCE.

32. R.M. Yingling, Acting Administrative Assistant to the Special Assistant to the Secretary and Deputy Secretary of Defense, 30 August 1978, subj: Appointment of Members to the Chief of Engineers Environmental Advisory Board (copy); Lieutenant Colonel Robert M. Faxon, Military Assistant, Office of the Assistant Secretary of the Army, to DA Committee Management Officer, 28 September 1978, subj: Rationale for the Use of Non-personal Services Contracts for Environmental Advisory Board Consultants (copy); Joel B. Hudson, Acting DA Committee Management Officer, to Chief of Engineers, 18 October 1978, subj: Appointment of New Members to the Chief of Engineers Environmental Advisory Board (copy). All in Committee Management files, DA.

33. Jahn's appointment was approved on 13 December 1979. The extension of McLindon's contract was not actually approved until 24 March 1980 (see following note).

34. Joel B. Hudson, DA Committee Management Officer, to Morris, 13 December 1979, subj: Appointment of Member to the Chief of Engineers Environmental Advisory Board (copy); Hudson to Morris, 24 March 1979, subj: Reappointment of Member to the Chief of Engineers Environmental Advisory Board (EAB) (copy), both in Committee Management files, DA. Interestingly, there was one major difference between the 13 December and 24 March letters. The December letter urges the Corps to seek "female and minority nominees." The March letter, however, which is quoted in the text, deletes the reference to females.

Note on Sources

Official file material and oral interviews provide nearly all the sources for this history. Not surprisingly, few secondary sources proved relevant. Those that did are cited in the chapter notes. The official files can be found in three principal locations: Office of the Assistant Director of Civil Works for Environmental Programs, Civil Works Directorate, Office of the Chief of Engineers; Historical Division, Office of Administrative Services, Office of the Chief of Engineers; and (used mainly for the appendix) Office of Committee Management, Department of the Army. As a result of the passage of the 1972 Federal Advisory Committee Act, almost all of these documents will be kept on "active" file in the various offices until the Environmental Advisory Board is dissolved. At that time many of the documents will be retired to the Federal Records Center, Suitland, Maryland.

All illustrations are from the files of the U.S. Army Corps of Engineers.

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